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NATURAL HISTORY

OF

BIRDS, FISH,

INSECTS, AND REPTILES.

EMBELLISHED WITH

UPWARDS OF TWO HUNDRED ENGRAVINGS.

IN SIX VOLUMES.

VOL. VI.

OR, SUPPLEMENTARY VOLUME;

Containing a description of rare and curious Birds, discovered since the death of Buffon, selected and arranged by Sonnini and J. J. Virey, and translated from the last edition of Buffon.

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P R E F A C E.

IN compiling this supplementary volume to the present edition of Buffon, it has been studiously endeavoured to adapt it to the preceding ones, by following the same arrangement. He, therefore, who should wish to know, in his progress through this part of natural history, what new species of each bird may have been discovered since the time of the illustrious original, will find them arranged in this volume, in a corresponding order with that of the former ones. It was thought that the *utility* of the work would be thus increased.

In selecting from a great mass of materials, the guiding principle has been to collect what is most rare, and at the same time most deficient in the former part of the work. A very great proportion of the articles is entirely new to any English system of ornithology, being such as have been amassed by Sonnini and Virey, either in the personal travels of the

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former,

PREFACE.

former, or in their mutual access to rare collections in Paris and other parts of the continent. The splendid edition of their great countryman, which has been produced under their inspection, and with their numerous additions, in 114 volumes, is an honourable testimony of the munificence of French literature.

In some few instances, where, from the ambiguity of nomenclators, or from the cursory and consequently obscure description of the individuals, it has not been easy to discriminate them, we have ventured to insert, what may, or may not, be the same bird; but, if the former, the copious additions of our original will prove the propriety of our proceeding.

On the whole, we trust we have here produced a volume which, whether singly considered, or in connexion with the former ones, will not be denied the praise of interest and curiosity in its contents.

London, July 16, 1808.

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NATURAL HISTORY
OF
BIRDS, FISH, REPTILES, &c.

SUPPLEMENTARY VOLUME.

THE CASSOWARY.

THE CASSOWARY OF NEW HOLLAND.

THIS bird, which cannot fly, is peculiar to New Holland. It does not seem to be a singularity there, but is to be seen very frequently in the vicinity of Botany Bay and Port Jackson. It has been denominated the *Cassowary*, because, in fact, it has many points of resemblance with that East Indian bird; yet, however, its many dissimilarities separate it absolutely from this species, while they approximate it to that of the ostrich: so that

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it may be considered as a particular species, placed between the ostrich and the common cassowary, and forming the intermediate link or passage from one to the other.

Its size is larger than that of the Indian cassowary, and it is about seven feet in length. It stands also higher upon its legs; its neck is more elongated; its wings are shorter, and quite useless for any purposes of flight; they are not furnished with large feathers, but are wholly formed of small ones similar to those that cover the rest of the body. But its most distinguishing peculiarity, is, that it is without the bony protuberance in the form of a helmet, which covers the top of the cassowary's head; another singularity is a sort of notching or denting which runs along the hind part of the legs.

On the other hand, this bird approaches to the ostrich in the form of the beak, and the head being covered on the top with thinly scattered feathers, very similar to hair. The neck is covered with feathers as low as the throat, and those parts which are naked are somewhat of a purple colour: the colour of the plumage is a mixture of a dirty brown and grey, in which it resembles the Indian cassowary; the feathers of the belly alone are
rather

rather white, and they all have their tips a little bent.

One of the cassowarys of New Holland has been dissected; the liver was so small that it did not exceed in size that of a blackbird; the gall bladder was large and full of bile; the intestinal canal nearly six ells in length, large, of a cylindrical form, and regular from its origin to its extremity; the heart and lungs were separated by a diaphragm proportionate to the size of the bird; the stomach was filled with flowers, berries, and herbs of all sorts.

This bird is very fierce: its motion is very rapid, and quicker than that of a greyhound. It is not delicate eating; yet its flesh is not bad, but approaches, in flavour, somewhat to that of beef.

THE EAGLE.

OBSERVATIONS ON THE COMMON EAGLE.

By Sonnini.

ALMOST all naturalists who have written upon birds have made two distinct species of the brown and black eagle: some, indeed, have considered them only as the male and female of the same species, and, in the eyes of Buffon they appeared to be simple varieties. Although this opinion (adopted by a more recent ornithologist, Daudin) is very probable, it is not, however, proved. The question does not appear to me to be quite decided, and we need a greater number of observations for that purpose than are yet within our reach. It is not, in fact, by a minute comparison of the dead carcasses of birds, nor by a scrupulous indication of their colours, that we can hope to trace with a steady hand the line of demarcation which separates the species. Age, sex, season, all produce various changes in

in the covering of birds of prey; and diversities of plumage, in various situations, are common to them with many other species of birds.

Observation alone can guide the steps of the naturalist in these yet uncertain divisions; when that is silent, error is superinduced, and attaches itself to the labours of those who rather love to write dissertations than to observe; and to whom it too often happens, nothing is left but regret for having consumed their time in fruitless occupations, that oppress the mind, and exhaust the imagination over which opinion reigns and nature disavows.

But, what an astonishing mass of observation would be necessary to arrive at a complete knowledge of birds, and to connect ourselves, as it were, to the labours of nature, in order to distinguish with certainty, and in a luminous manner, the various families of which the tribes are composed that wing the air; ages would scarcely suffice for the collection of these observations, without which, the natural history of birds must necessarily offer uncertainty and confusion. Few persons have either time or inclination to give themselves to such researches, and the zeal
for

for this sort of knowledge is yet too limited to hope for so brilliant a success.

Yet, the history of birds would soon attain this desirable perfection, if there were many observers so ardent and persevering in their researches as Levaillant. A celebrated traveller, and indefatigable ornithologist, great and numerous discoveries have become his honorable property and the domain of his glory, as well as the gratitude of naturalists; and under this denomination, I do not comprehend certain men, who, having studied nature only in their cabinets, and travelled only in their chamber, yet arrogate to themselves the right of distributing reputation; and who, from a marked conformity with certain beings that we have described among the quadrupeds, have an irresistible inclination to bite and tear. Levaillant, who passed a great part of his life in traversing unexplored and distant countries, and in accumulating the most interesting observations, found himself exposed, more than any other, to indecorous and insulting imputations and criticism; yet no one, perhaps, ever merited them less; and if they do not respect his labours and his brilliant reputation, they ought at least to have regard for the simple and unaffected manner in which
he

he communicates the results of his researches, and for the frank and generous affability which induced him to communicate his treasures of natural history.

It is in the collection of this bold and patient naturalist that we behold the different shades of colour, often opposite, that cover birds from their state of infancy to perfect growth, as well as the no less striking disparities which exist between the male and female of certain species. It is in his magnificent work,* that the beauty of the figures answers the interest of the discoveries, and the conclusion of which is too tardy in its appearance for those who know the first volumes, and who are eager for the most interesting and the most complete details upon the habits of many, hitherto unknown, birds, in which he has, at once, brought their history to a point which has hardly been attained in that of the most familiar birds.

Entrusted to write the history of birds before it was possible to consult all the records that are preserved in the archives of nature, I shall often be compelled to use conjecture instead of fact; but I will present them at least as conjectures, and will cautiously avoid to give my own feeble conceptions as the
sublime

* The Natural history of African birds.

sublime views and results of nature, who, always great, always majestic, has developed an immense variety of combinations, and shed all the lustre of ornament upon the most brilliant class of animals.

It is upon this principle that I am now going to state the reasons which lead me to doubt the identity of species of the brown and black eagle, until, more acquainted with their nature, we shall know the differences which exist between the male and female of the common eagle, and between the young bird and the one more advanced in age. Should this future knowledge prove that my opinion is not founded, this discussion will not, however, be useless, for it contains some interesting details upon the common eagle, whose habits seem not to have been well known to Buffon; and these scattered facts form, in the strictest sense of the word, the science of natural history.

If we may rely upon difference of colour for the distinction of species among birds, the brown eagle will not, of course, be of the same species as the black. In fact, there exist between these two birds, discrepancies, which I shall enumerate.

The brown eagle has the top of the head and the neck approaching to red: these parts
are

are much deeper in the black eagle. The same difference may be remarked upon the back, the rump, the throat, the under part of the neck, the breast, the belly, the sides of the body, the covert feathers of the wings, and those upon the top of the tail; all these parts are brown, upon the brown eagle; and blackish upon the black eagle. The former has the under covert feathers of the tail, brown; those of the latter are white, terminating in brown; the feathers that cover the legs of the brown eagle as far as the talons, are brown on the outward side of the legs, and of a brown, approaching to red, on the inside: the black eagle has these feathers brown both on the inside and outside. The brown eagle has the first five large feathers of the wing blackish, and the black eagle has only the first two of this colour; it has also blackish spots scattered over the white side of the other wing feathers and those of the tail; and these spots are entirely wanting in the wings and tail of the brown eagle. The skin which covers the base of the beak in the brown eagle, is yellow, and the feathers of the feet are a reddish brown; while the black eagle has the skin of the beak reddish, and the feathers of the feet a dirty white.

There are also some differences, small to be

sure, in the dimensions of these two birds, the black eagle not being so large as the brown.

Whatever there may be of these discrepancies, upon which observation alone can decide, I shall proceed to the natural habits of these two eagles, of which we do not know enough to speak of them separately; and I shall relate what is known of them, using the denomination of *common eagle*, under which head Buffon has classed them.

These eagles are, in fact, more common than the great eagle, or the royal eagle. They live upon mountains, whence they descend into the plains during winter: they retire into forests, and it is not uncommon to take them with springes. They are seen every winter in the forests of Orleans and Fontainebleau. They choose the steepest rocks and loftiest trees, in which to build their nests, which are very large; some of them have been found more than five feet square in the mountains of Auvergne. Their eggs are of a deep iron grey, with stripes of a darker colour.

The species of the common eagle is also found in hot countries. Poiret saw them in Barbary, in the plains of which, they are frequently to be met with, and where they utter a shrill and piercing cry; they attack every
kind

kind of bird, and when hunger presses them, they will feed upon carcases.

It is said also that they are found in Persia and Arabia, so that they are common to every quarter of the globe.

It is not only in Hudson's Bay that this species of eagle is found in America; they are to be seen in the more southern countries, in Carolina and Louisiana, whence they were sent to Mauduyt.

This bird presents a phenomenon which is peculiar to it. When it swallows pieces of food, two drops of liquor issue from the apertures of the nostrils, run along the top of the beak, unite themselves at the point, and then enter the mouth and mix with the aliments. This liquor is rather salt, and of a light blue colour; it continues to flow as long as the repast of the eagle continues. The ejection of this fluid is most probably produced by the compression of the glands which contain it: its use is not known; but it is likely that it mixes with the aliments to soften them and facilitate digestion.

The eagle of Hudson's Bay has been uselessly exalted into a variety; but Buffon, with every appearance of propriety, united it to the common eagle, from which it seems to differ, in fact, by characters too slight to render it

a distinct species. Another eagle, presented, by Daudin, as a variety of the common eagle has a black tail, marked towards the middle with a large transverse white band. But as this ornithologist gives no description, nor any indication, we are not enabled to judge whether this bird with the barred tail be really an eagle, or whether it may not have some distinctive marks which approximate it to some species that approach to that of the eagle.

THE GRIFFARD.

THIS great eagle of Africa is one of those numerous conquests of Levaillant in ornithology, and one of those claims which he has acquired to the gratitude of the lovers of this branch of natural history. It was but fair that this celebrated traveller should give names to those animals which he discovered, and it is equally fair that they should retain those names, which recal to memory the intrepid individual who conferred them.

Besides, the name of *griffard* denotes a prominent character of that species of birds of prey to which Levaillant has applied it. In fact,

fact, the griffard, though nearly the size of the royal eagle, has stronger talons, the toes more scaly, and the legs longer and more muscular; the head is rounder and the beak weaker, and less prominent at the curvature. The eye is large and deeply sunk; the crop projecting and covered with a fine glossy down. Behind the head, the feathers are a little longer than the others, forming a sort of small pendant tuft. The feathers of the tail are of an equal length; the wings, when folded, do not project beyond them; the feet are covered with short feathers as far as the insertion of the toes. The female is eight feet seven inches from tip to tip of the wings when extended; and the male is only seven feet five inches. This latter is one fourth less vigorous than the former.

The plumage is of a beautiful white underneath: white and greyish brown on the head, on the back part and on the sides of the neck, each feather being white at its insertion, and of a greyish brown towards the point: a clear brown on the back and the upper covert feathers of the tail. The large quill feathers of the tail are black; the middling ones, as well as those of the tail, are transversely striped with a dirty white and blackish colour, and the small ones are terminated with white.

The

The beak is bluish at its base, and black towards its extremity: the toes are yellowish, and the talons rather black. The iris of the eye is a beautiful and lively light brown. The female differs from the male in its colours not being so deep.

The griffard possesses much strength, courage, and boldness: he attacks the other birds of prey that approach the spot he has marked out for his abode, and where he chooses to reign in tyrannical supremacy: he will not suffer any to be in his vicinity: he pursues them and does not quit them until he has forced them to fly, and yield entirely to him the empire of destruction which he has established around. Like all tyrants, his character is gloomy and distrustful: he perches upon the tops of the most elevated trees, whence his wandering gaze may be directed to a great distance. The various species of small antelopes and hares form his ordinary nourishment. When he has killed one of these innocent animals, troops of ravens and vultures arrive from all parts to share the prey with him; but his fierce and menacing posture, even on the body of his victim, is sufficient to keep at a distance this troublesome legion of cowardly and voracious birds.

The griffards are generally found in couples.

The

The male and female rarely separate: they place, like the eagles, their nests on the summits of the loftiest trees, or on the points of inaccessible rocks: this nest also is formed like that of the eagle, viz. it is not hollow, but flat and level, like a planched floor. It is composed of twigs and flexible branches, and is solid enough to support a man without any danger of sinking. The female deposits on the surface of this nest, which is formed of nothing but sticks without any soft substance, two eggs, almost round and entirely white. While she covers them, the male is occupied in the chase and in the care of providing for the support of his family: but when the young ones have acquired some growth, their appetite becomes so great, that the male is no longer able to satisfy it, and the female is then obliged to lend her assistance towards this duty.

The griffard is, in fact, very voracious. Levallant preserved a live one, whose wing only he had broken by the shot of a gun. This bird refused all kinds of aliment for three entire days; but as soon as he resolved upon taking any nourishment, he became insatiable: he was extremely agitated at the sight of meat when presented to him; and he often swallowed entire morsels of a pound weight:

weight: though his crop were full he would refuse nothing: without any other incentive than that of gluttony; he swallowed indistinctly all sorts of flesh, even that of other birds of prey.

The griffard frequently utters acute and piercing cries, mingled with mournful and hoarse tones. They rise to so great a height, that their cries may often be heard when they themselves are not perceptible.

Levaillant found the griffard in the country of the great *Namaquois* in the southern part of Africa: he never saw any of them in his travels through Caffraria, whence it may be presumed, that the countries frequented by this species of eagle may be comprized between the twenty-eighth degree of latitude and the tropic.

THE EAGLE OF GOTTINGEN.

THE appellation given to this bird does not strictly belong to him, since, probably, he inhabits less the environs or territory of Gottingen, (where he has only been once found) than

than other more northern countries. I have continued this name only until it shall be known what one he bears in the places where he is more common, or until we know whether it be or not a particular species. The name of *glaucopis*, which signifies a *greenish nose* or *beak*, which Merrem proposed, and which has been adopted by some authors, is no less improper. Many other birds of prey have greenish beaks, and besides, the colour of the beak being so often liable to vary, is not a sufficiently distinguishing and characteristical trait to be singly employed for the designation of a species.

The description of the eagle of Gottingen is all that we know of it. Its total length, that is, from the point of the beak to the extremity of the tail, is one foot, nine inches, three lines. It has the apertures of the nostrils large and oval: black bristles cover them behind. The tongue is fleshy in the middle, of a harder substance and approaching to horn at the sides, and hardly divided at its point: its legs are short, and furnished with feathers that are soft to the touch: a woolly down covers about one half of the tarsus in front.

This bird has the breast and back brown:
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on the front of the head there are small brown spots in the form of a crescent: the head and the upper part of the neck are of a yellowish white variegated with brown: the tail of a reddish brown at top, and of a dirty white at bottom, with six black bands: the beak greenish: the tongue and all the interior of the mouth, a rose colour: the iris a yellowish white: the membrane at the base of the beak and the feet, a citron yellow, and the claws black.

THE EAGLE OF ASTRACAN.

THIS eagle is nearly double the size of the preceding one, its length being nearly five feet one inch. It is also more voracious and more destructive, and its insatiable eagerness for prey induced Gmelin, who describes it in the *Recueil des Memoires de l'Academie de Petersbourg*, to give it the name of the *ferocious eagle* (*falco ferox*). But that sort of ferocity which impels it to slaughter, is common to it with other birds
of



The Eagle of Astracan.



The Black backed Eagle.

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of the same species, of a larger size, and consequently with a greater appetite, and provided with more terrible arms for satisfying it. It appears even, that the eagle of Astracan, which is uniformly denominated *ferox*, in the nomenclatures of ornithology, has less courage than other eagles, and that its ferocity consists merely in a gluttony not easily appeased, for Gmelin assures us that it will feed with equal avidity upon the most infected carcasses.

The membrane of the beak of this bird is green: its head and neck are a greyish brown, mixed with a whitish tint. Its plumage is generally brown; but its back, belly, and rump, are white variegated with spots of a chesnut colour: the twenty-six feathers of which the wings are composed, have the top black, the under part white, and grey towards the tips: the twelve feathers of the tail, all of an equal length, are white beneath, and brown above, with four bands or rings of a still lighter brown: the beak is a leaden black colour; the eye-lashes are blue, the iris yellow, and the nails pointed.

It was in the environs of Astracan that Gmelin discovered this species of eagle,

which perhaps is only a variety of the brown eagle, or probably the brown eagle itself.

THE EAGLE OF JAVA.

THIS eagle has been described for the first time in a foreign journal.* It is found in the island of Java, where it frequents the borders of the sea. Fish forms its principal nourishment: its voracity, however, impels it to devour dead animals.

Its length is about four feet five inches, and its height one foot six inches. The body and the end of the tail are white, the feathers of the legs of a white and red colour, and the membrane of the beak and the feet yellow.

This description, incomplete as it is, is sufficient to shew that the eagle of Java is really a particular species.

* Wurmb. Lichtenberg Magazin fur des neueste ans der Phys. iv. 2. p. 6.

THE GREAT EAGLE OF GUIANA.

By Sonnini.

THE great eagle of which I am now going to give the description, is from all appearance, of the same species as that which Mauduyt, described in the *Encyclopédie Methodique*, under the same denomination, the great eagle of Guiana: this last may indeed be the male, being smaller than the other, and having different colours. But though I discovered and killed, myself, this eagle in the forests of Guiana, I am not prepared to decide whether or not they are distinct species.

However this may be, the following are the observations which I have collected from a very attentive examination of the greatest eagle hitherto known, and the discovery of which was the fruit of my travels. I drew up this description on the very spot, and at the moment when I had brought down this great bird.

In size it surpasses much the great eagle,
or

or the royal eagle. Its total length, measuring from the beak to the tail, is three feet and a half: its beak is three inches long, and about fifteen lines broad at its base; and one inch, nine lines in thickness: the overtures of the nostrils are five lines and a half in length, and two in breadth: they are placed about thirteen lines from the anterior angle of the eye, which is about an inch from one angle to the other. The tail is one foot four inches and a half in length, and it exceeds the wings when folded, four inches and a half: the foot is six inches: the middle toe, without the claw, measures three inches, and the hind toe, two inches two lines: the length of the middle talon measured in a straight line, is one inch and a half, and that of the hind one, two inches and a half.

The form of this bird approaches much more to the eagle than to any other: the beak is straight at its insertion, and the hind talon is the longest, which is one of the principal characteristics of eagles: the flesh, however, between the eye and the beak is entirely bare of feathers, and only sprinkled with a few black hairs: and the feathers of the feet do not descend so low as the talons, which they do in the feet of eagles: these are
the

the only prominent discrepancies that exist between the eagle and the bird now describing; discrepancies which are, as it were, compensated for by the great number of similarities that they have in common.

The feathers of the head of this noble bird are of a cinereous grey terminated by a dirty white. From the summit of the head issue long feathers, of which the two middle ones are the longest, being more than five inches: they are of a reddish grey as far as about one half of their length: the rest is black, and terminated like the former. These long feathers are flat behind: those on the top of the neck and on the back are, for the most part, of the same colour: other feathers, irregularly intermingled among these, are, as it were, veined with black and a reddish grey, but all of them are terminated with the latter colour: the feathers of the rump are grey, as well as the under covert feathers of the tail, but these last are streaked more irregularly with black.

Some of the upper covert feathers of the wings are black, and terminated with grey; others black, and terminated with a reddish grey; and others veined with black and a reddish grey. The first quill feathers of the wings are black on their external side,
that

that is, on the side which is apparent when the wings are folded. Large bands of a reddish obscure brown, and spotted with black, cover the interior side of these same quill feathers; and the others are black, waved as it were, with grey and a reddish grey.

The quill feathers of the tail are grey, with large bands of black spots: they are terminated with a reddish grey, except the two intermediate quill feathers, which have their extremities grey bordered with white.

All the under part of the body, with the exception of a semi-collar, black and veined with a reddish grey, are of a dirty grey: the feathers of the belly are white, and as soft as down to the touch. The small covert feathers on the under part of the wings are of a dirty grey: the others are white, and some of the large ones have blackish bands. The feathers of the feet are white, streaked with black: these feathers extend two inches in length beyond the tarsus, the posterior side of which is entirely bare.

The beak, the membrane at its base, the naked skin upon the cheeks, and the nails, are black: the feet and the toes are covered with yellow scales.

I have been very diffuse in my description
of

of this bird of the hot and humid countries of South America, because I am the first who have described it, and in order that this description may thus be enabled to be compared with other details of species that are more known.

These eagles are rare in Guiana; they are not known in the island of Cayenne; nor in the environs of the habitations. They can only be found by advancing into the interior of the country: I never saw but three in the two voyages which I made to Guiana. It is a solitary bird that lives in the depth and obscurity of the most impervious forests: he feeds upon the game which is abundant there: and when he is moved or irritated, he elevates the long feathers of his head in the form of a tuft, or crown.

THE DESTROYING EAGLE.

(*Falco Destructor.*)

THIS bird is also one of my discoveries in Guiana. No person, before me, had ever

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mentioned it, and I brought to Paris the first that was ever seen there. Mauduyt had it in his fine cabinet which he afterwards sold to the Duke of *Deux Ponts*: and this eagle, as well as the other articles of this rich collection, became a prey to the flames at the commencement of a bloody war which seemed to be directed by a dreadful spirit of Vandalism.

Another individual of the same species, or at least, of a very approximate one, is at present preserved in the Cabinet of Natural History at Paris. The name of the *destroying eagle* has been affixed to it there, though it is not known whether it be naturally more destructive than other species of the same genus. I shall, nevertheless, retain this denomination, however ill applied it may be, for there is nothing so embarrassing, when studying natural history, as frequent mutation of names.

Mauduyt called it *The great eagle of Guiana*: but that designation is equally improper, since the bird from the same country, described in the preceding article, is still larger than the present one.

Its length is three feet two inches; the bone of the foot measures at the middle, three inches

inches three lines in circumference: the hind toe is three inches seven lines long, and the curvature of the talon is two inches nine lines: the internal toe measures, from the commencement of the claw, two inches ten lines, and the claw is two inches long. When the bird is standing on its feet, the space between the extremity of the talon of the middle toe in front, and that of the talon of the hind toe, is eleven inches. It is evident that these dimensions are much greater than the corresponding ones in the eagle which I have called the *Great Eagle of Guiana*, though the size of the latter is greater than that of the present one: and this disparity of proportion, joined to those of form and colour which exists between them, may lead us to conjecture with some probability, that they are different species.

The tuft, which is common to the heads of both these birds, has also some differences: that of the destroying eagle is not so long; it has only one feather, which is larger than the others; while in the tuft of the great eagle of Guiana, the two middle feathers are longer than the rest: and this single feather of the tuft of the destroying eagle is only four

E 2

inches,

inches, while the two intermediate ones of the other are five and a half.

Besides, the destroying eagle has the top and the sides of the head of a blackish grey: the tuft is grey, and its long feather black terminated with grey: the under part of the tuft and the neck are grey: the back and the large covert feathers of the wings are black intermingled with greyish circles: the top part of the wing grey mixed with black: the quill feathers black, and extending two-thirds over the tail: the tail itself is black shaded with grey, whitish underneath, and terminated by a black band: the breast and the belly of a dirty white mixed with grey: the feathers of the legs white and striped with black: the short close feathers which cover the feet about one inch below the knee, are whitish; the tarsus and the toes of a pale yellow, and the beak and talons of a horn colour.

Independently of the shades of colour, we may remark another disparity of form between the destroying eagle and the great one of Guiana; viz. its feet are covered with a sort of down as far as one inch below the knee; while the great eagle of Guiana has these same parts covered with feathers as far as two inches

inches below the knee and in front only, the tarsus being entirely bare on the posterior side.

The solid and strongly curved beak of this bird, and its powerful and pointed talons, are certain indications of its strength, and prove that nature has destined it to attack large animals. Its ordinary food, according to Mauduyt, who says he had his information from travellers, is the flesh of the *unau* and the *ai*: it carries away also fawns and other quadrupeds. This may be; indeed it is very probable; but what travellers can have followed with sufficient constancy a rare bird, and which is only found in the deepest parts of the forests of Guiana, as to be certain of these peculiarities? As for myself, who, in the course of many months, in the midst of the forests of this country, discovered the first of these eagles that had ever been seen in the cabinets of natural history, the first even that had ever appeared in the colony of Cayenne, I am far from knowing its habits and customs; and as, since the epoch of my voyages in these desert countries, I have not heard that many others of these eagles have been sent into Europe, I am at a loss to conceive how any travellers have had an opportunity of observing them with so much attention as to discover their tastes and manner
of

of living. But, one thing may be advanced without any fear of error: it is not a piscatory eagle, which might have been suspected from the nudity of its feet. To deduce the manners and the regimen of a bird from so trivial a character as the greater or less elongation of the feathers on the legs, is it not to expose ourselves to contempt? But, the eagle of which we are now speaking, confines itself to the interior of the country, where the rivers are not very fertile in fish; the species of fish also are not large, and would not require on the part of the bird the application of very powerful arms: and besides, it is a general remark which I have made, that the fish of these rivers, very rarely, indeed hardly ever, shew themselves on the surface of the water, and it cannot be supposed that a bird so large as this could seize them in the water, nor even that the rivers, which are not very large, and which are covered on their sides with lofty and thick trees, could furnish free room enough to enable the bird to fish with any advantage.

I have found this eagle perched on the top of a very lofty tree, towards the source of the *Orapú*, a large river of French Guiana. It was motionless, and uttered no kind of cry. The ball of the musquet having only broken
one

one wing, I kept it some days alive: I fastened it by one foot to a bench in the middle of my canoe. It did not appear mischievous: it did not endeavour to attack the persons by whom it was surrounded: but this tranquillity was, perhaps, the effect of its captivity, or of the pain which the wound caused: it constantly refused every kind of nourishment; and to abridge its sufferings I had it killed and skinned. Its flesh not presenting a very delicate food, the person who preserved my birds, threw it away, so that I could not examine whether it was a male or female. Mauduyt conjectures that it was a female, and that the male is precisely the same, unless perhaps, that it is not quite so large, that its breast is black, and that its plumage is altogether more lively. But this is merely presumption which does not seem to have much foundation.

THE OUIRA OUASSOU.

NO naturalist has given either a description or a figure of this animal: both the one and the

the other are to be found in a Portuguese manuscript addressed to M. de la Condamine, by Don Laurent Alvarez Roxo de Potflitz, *grand chantré* of the cathedral of Pora and correspondent of the Academy of Sciences at Paris.

Ouira ouassou or *vyra vassu* signifies in the language of Brazil, *great bird*.* It is in fact, of a considerable size, being double that of the eagle. Its head is large, and ornamented with a tuft in the form of a helmet: its beak is long: its eyes are clear, lively, and piercing: the apertures of the nostrils are large, and furnished with hairs on the side next the beak: the neck is big: the feet are bare, scaly, and reddish, the same as the toes: the talons are black and crooked.

The feathers of the back, the wings, and the tail, are generally brown spotted with black, and variegated with whitish or almost yellow lines: the belly is covered with white feathers, very soft to the touch, and not less beautiful than those of the egret.

The *ouira ouassou* is a very beautiful bird; its plumage is agreeably varied, and its attitudes are full of fierceness and dignity. His
motions

* The Portuguese of Brazil know this bird under the denomination of *gavian real* or *gavito real*, viz. *the royal bird of prey*.

motions are imposing, and announce his strength and power: his flight is majestic, but at the same time rapid. Dreaded by the other animals, who tremble and hide themselves at his approach, he seems to be the king, or rather, the tyrant of them. His wings have such an amazing extent, that they often serve to kill in the air, the birds which he has pursued, and which he afterwards seizes with his talons. His tail, which is large and long, contributes to the elevation of his flight.

His strength is so great that he tears to pieces in an instant the largest sheep. He pounces with rapidity on the *cariocous*: and experiencing no resistance in his empire of destruction, he pursues indifferently every species of wild animal: he dares even to attack men, no matter whether he see them prepared or unprepared; the pursuit of him, therefore, is dangerous, for when he feels himself wounded, he throws himself upon his back, folds his feet upon his breast, and remains immoveable as though he were dead: but if any one approach to take him, he rises suddenly by the help of his tail, and throws himself with such violence upon the arms of the hunter, that he pierces them through and

through with his talons. But his most ordinary food is apes, particularly that species which they call at Brazil *quaribas*, which he kills with his beak and talons, and which he carves and devours in an instant with a degree of skill and voracity that is astonishing. This predilection for that peculiar race of apes has occasioned him to be called by the natives, *eater of quaribas*.

Though possessing an extreme voracity, yet this bird can pass fifteen or twenty days without taking any nourishment. Its ordinary residence is upon high mountains: it places its nest on the loftiest trees: it employs in its construction the bones of animals, which it has devoured, and some dry branches which it fastens with slender twigs. "Some persons," says the author of the MS. "imagine that the female lays three eggs, and that it rejects two of them; but observation has proved that she lays only one, and that it covers this one with great care." The same thing has been said of the eagle, and it is probable that these fables have crossed the seas with prejudiced observers, who have applied to the eagle of America, the stories that have been fabricated respecting the European eagle. The female ouira ouassou lays, very probably,

probably, two eggs, the same as the female of the eagle. These eggs are white, spotted with reddish brown.

This species is more numerous, and at the same time larger, on the borders of the Amazon, than in any other part of these countries. The quill feathers of its wings, the largest of which are about a cubit in length, serve to write with. The natives of *Cartoes* make whistles of its claws, which they ornament with different feathers. Its feathers, burned and applied in the form of powder to the bite of spiders, possess a particular property of extracting the venom and appeasing the pains which it occasions: they have also the same property of curing the bite of other venomous animals, except the rattle-snake. Lastly, its talons, burned and reduced to a powder, and a dose of two drachms being swallowed, is said to be an excellent remedy for gonorrhœas and the fluor albus.

It will easily be believed that I relate these pretended properties of the *ouira ouassou* only because I wish to omit nothing that is known of so large and so rare a bird: and I believe, that notwithstanding the testimony of Don Laurent de Potflitz, no one will be tempted to try the efficacy of his recipes.

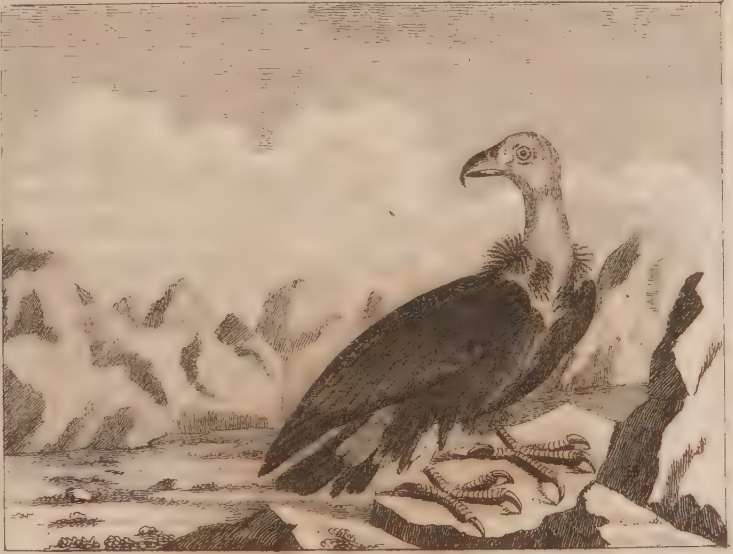
THE EAGLE OF MONTE VIDEO.

THE drawing of this bird of prey which, in its form, and particularly in its bare feet, is very similar to the Balbuzzard, was found by Sonnini among the plates of the late M. Commerson, a much regretted traveller and naturalist. As the figure has never been before published in any English work, it has been engraved for this supplementary volume. This bird is about fourteen inches high, and about sixteen or seventeen in length. The talons are long and crooked, and announce great strength. The plumage was in general of a yellow colour: the sides of the head grey: the breast covered at intervals with spots in the form of tears, and the tail white underneath, with straight and transversal bands.

This piscatory eagle, or crab eater, is from Monte Video: that being the only note which accompanies the drawing of Commerson.



The Eagle of Monte Video.



The Peronoptère.

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THE VULTURE.

THE PERCNOPTERE.

THIS name has been adopted from the Greek to distinguish this bird from every other one: it certainly is not an eagle, and it is as certainly a vulture, or, more strictly speaking, it forms the connecting shade between these two species of birds, being however, infinitely more approximated towards the vulture, than towards the eagle. Aristotle, who has placed it among the eagles, confesses, himself, that it approaches nearer to the vulture, having, says he, all the vices of the eagle without any of his good qualities: suffering himself to be hunted and conquered by ravens, indolent in the chase, heavy in flight; always lamenting and moaning, always starving and seeking for dead carcasses: he has also shorter wings and a longer tail than

than eagles: his head is a clear blue colour: the neck white and bare, that is, covered like the head simply with a white down, with a collar of small white and stiff feathers under the neck in the form of a ruff: the iris of the eye is of a reddish yellow: the beak, and the naked skin which covers the base of it, are black: the crooked extremity of the beak is whitish: the lower part of the legs and the feet are bare, and of a lead colour: the talons are black, and neither so long nor so curved as those of the eagles: it is, besides, very remarkable for a brown spot in the form of a heart, which it bears upon the breast beneath the ruff, and this brown spot appears to be surrounded, or rather embroidered, with a straight white line. In general this bird is a hideous figure, and badly proportioned: he is even disgusting on account of a continually flowing humour from his nostrils, and the two other holes which are in his beak, and by which the saliva issues: he has a prominent crop; and when he is upon the ground he always keeps his wings extended.* In fact,

* The custom of keeping the wings extended belongs not only to this species, but also to the greater part of vultures; and also to some other birds of prey.

fact, he resembles the eagle only in his size, for he is longer than the common eagle, and approaches to the great eagle in the bulk of his body, but has not the same extent of flight. The percnoptere seems to be more rare than that of other vultures, yet it is found, though in small numbers, in the Pyrenees, in the Alps, and in the mountains of Greece.

The ordinary length of the male percnoptere is three feet two inches, and that of the female three feet eight inches: its breadth from tip to tip of the wings, when extended, is nine feet: that of the male is only eight feet. The plumage of both of them is a reddish colour, mixed with some brown spots: the quill feathers of the wings and those of the tail are black: the belly and the hind part of the thighs are white: the head is elongated: the eyes are small: the head and neck void of feathers, but covered with a smooth down, thick and very white, through which may be seen the bluish colour of the skin: the crop is very prominent, covered with a brown down surrounded with white: the lower part of the neck is encircled with long, straight, and rather stiff feathers, which form a sort of cravat:

cravat: the feet are bare, and of a leaden grey colour.

This description of the percnoptere is by a learned naturalist, Picot de la Peyrouse, who also assures us that vultures are migratory, that they love warm countries and elevated regions, and that they quit during winter the Pyrenees, where they are found in great numbers during the summer months.

In the Levant the Greeks and Turks value very highly the fat of the percnoptere: they use it as an excellent tonic to mitigate the pains of rheumatism. The name of this bird in modern Greek is *skania*.

THE ORICOU.

THE name of *oricou* which Levaillant gave to this vulture that he discovered in Africa, appears to be composed of the words *oreille* and *cou*, because these parts of the bird present a very remarkable singularity. A membrane about four lines in height lines the apertures

apertures of the ears above and in front, and projects over the neck in a straight line.

Besides this border, which ornaments and defends the ears, the oricou has some other characteristics which easily distinguish it. Its crop is very prominent, and covered with a fine, silky, shining down, and which has a strong resemblance to the fur of a quadruped. A semi-collar, large and crisped, covers the upper part of the neck: all the lower part of the body is covered with long stiff feathers, straight and curved at the end like a sabre. A very fine down embellishes the legs and one half of the foot; and the same down spreads over all the under part of the body, and it may be perceived between the stiff bristly feathers. The feet and the toes are very large, and covered with great scales: the talons are large and short, and not much curved.

This is one of the largest and finest species of the vulture: its breadth from tip to tip of the wings when extended, is more than ten feet, and its height exceeds three feet.

The naked skin of the head and one half of the neck is of a red flesh colour, slightly tinged with a violet blue towards the beak, and white near the ears: the eyes are sur-
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rounded with long, black eye-lashes: the throat is black, and covered with hairs of the same colour: the feathers on the upper part of the body, the wings, and the tail, are of a dark brown, bordered with the same colour of a lighter hue. The wings and tail are of the same sombre colour as the upper part of the body: the base of the beak, as well as the skin which surrounds it, are yellowish: the tip of the beak and the claws are of the colour of horn: and the iris of the eye is of a chesnut brown.

The young bird, when just hatched is covered with a whitish down. When it quits the nest, the feathers on the upper part of the body are of a clear brown, bordered with a reddish colour: those on the under part are not yet developed: the head and neck are entirely covered with a very thick down.

The oricou retires into the caverns and clefts of the rocks which cover the high mountains of the interior countries at the Cape of Good Hope, where it is very common, and particularly in the province of the Grand Namaquois. Levallant never saw it in the environs even of the Cape. The female lays only two white eggs, and rarely three: it is in the month of January that the young ones
are

are hatched. During the time of incubation the male watches at the entrance of the cavern where the female is sitting, and this is always a certain indication of a nest; but being always constructed in inaccessible places, it is very difficult to approach. "Nevertheless," says Levallant, "I have sometimes overcome, with the assistance of my Hottentots, all the difficulties, and often risked my life to examine the eggs: the den in which they are contained is a most disgusting place: it is a true Cloaca, and infected with an insupportable stench. It is the more dangerous to approach these obscure retreats because the entrance is covered with dung, liquified by the moisture which continually exhales from the rocks, so that there is a constant hazard of slipping from the points of the rocks, and falling into dreadful precipices, over which the oricou establishes itself from preference. I have tasted their eggs, and I have found them good enough to be made use of: it is to be remarked that vultures never rest in trees, at least in Africa; and I am much deceived if it be not the same with vultures in every part of the world."

At the rising of the sun, the oricous may be perceived in great numbers at the entrance of

their gloomy residences: sometimes an entire chain of mountains is strewed with them from spot to spot: they always keep together, and fly in troops, and these immense bodies of carnivorous birds seem to live in a very friendly manner among themselves; for sometimes three different nests may be found contiguous to each other in the same hole of the rock.

The voracity of these vultures is excessive. Levaillant relates that having wounded an oricou occupied in devouring the body of a hippopotamus, the bird endeavoured to snatch lumps of his prey while endeavouring to fly, and although he had at that time six pounds and a half of meat in its stomach. Weighed down by this great quantity of food, and detained by his wound and his voracity, he gave time for Levaillant to approach near him before he could rise. With the assistance of his Hottentots he overcame him, but with difficulty. The bird defended itself a long time with intrepidity: he bit the musquets with his beak, or struck them with his wings and talons with such force, that at each blow he scratched the barrels.

It is only, however, in the imperious act of self defence where his life is at stake that the oricou

oricou shews courage. Cowardice and baseness form the basis of his character, as of all birds of the same class: his strength and his great size do not render him bold: he does not attack animals, however weak they may be; and he contents himself with gorging upon their remains and the most infectious drains, sewers, &c. Even when in a body the oricous are not more courageous: they may be seen when any ferocious quadruped has possessed itself of some prey, waiting in a crowd and with patience, but at a distance (indicative of their base timidity) till he has finished his repast in order that they may feed upon what he leaves.

THE CHINCOU.

THE size of the chincou is nearly equal to that of the *oricou*, but it has a particular character which distinguishes it. This is a tuft of down of a greyish brown colour, which it has on the top of its head, and the form of which is exactly that of a powder puff, and which

which we call *houppes de cygne*.* The head and the throat are covered with a fine black down: the eye is surrounded with a white eyelid: a collar of long feathers separated from each other: all the bare part of the neck is comprised between this collar and the black down of the head, of a pale white, and having the appearance of a white cravat underneath the ruff: the skin in the front of the neck is wrinkled, and of a bluish colour: the crop very prominent, and, when full, like a bladder; but when empty, it contracts and entirely disappears under the long feathers, which parting from each side of the neck, meet together naturally in front. The feet and the toes are whitish: the talons are of a horn colour, as well as the end of the beak, the basis of which is of a blueish white. The beak is rather thick at its origin, but it insensibly diminishes towards its point.

When this bird has fed and digested his food, he sinks his head entirely between his shoulders: his beak then rests along his crop: his cravat surrounds his head, round which it forms a sort of sun with diverging rays: and his wings, which are pendant, conceal his feet;

* Probably the same as is called in English a *swandown puff*.

feet; his feathers stand so on end, that in this attitude he might rather be taken for a formless mass of something feathered, than for a bird.

The general colour of this bird is a uniform brown, deeper on the wings and on the tail, and also on the belly.

It is to Levaillant that we are also indebted for the discovery of this vulture: he has described it and had it drawn in Holland. It is fed with raw flesh, which it eagerly devours. It is very mischievous, and will not suffer itself to be approached: by dint of teasing Levaillant induced it to spread its wings, and he thinks that their breadth from tip to tip is at least nine feet. When tranquil and perched, his wings are never pressed close to his body, but hang negligently down.

THE JOTA.

THIS vulture from Chili, which bears the name of *jota*, differs but little from the *aura*; yet it has some remarkable varieties which serve

serve to distinguish it. Its beak is grey, with the exception of the point, which is black. All the body is black: the quill feathers of the wings are brown, as well as the legs. The skin on the head is wrinkled, and of a rose colour.

The jota acquires its black colour only from age and by degrees. When young it is almost white, and it is not till after it has quitted the nest that it changes its colour. The first black spot appears upon its back; and it extends itself gradually over the whole of the body.

This bird appears to be more cowardly and more indolent than the rest of the species. It may be seen sometimes for hours together basking in the sun, on the rocks or the roofs of the houses, immoveable, and with the wings extended. It is never heard to utter any cry: it is only when tormented that it sends forth a dolorous note, something like that of a rat, and which is generally accompanied with a throwing up of all that he had swallowed.

The jota exhales a fetid and disagreeable odour: disgusting and indolent, he seems to surpass all other vultures in cowardice and in bad qualities. Its natural indolence is conspicuous

spicuous even in the formation of its nest: he rather places than builds it between the rocks, or even on the ground, and it merely consists of some dried leaves disposed without care and without foresight. The female lays two eggs, which are of a dirty white colour.*

THE GYPAETES.

BETWEEN the powerful and generous eagle and the cowardly and disgusting vulture, there exists a race of large carnivorous birds, whose nature and whose external form approximate them both to one and the other. This family of voracious and destructive animals, which forms the shade between these two species, is sufficiently remarkable not to be confounded with them as they have been hitherto. Modern naturalists have every reason to separate them, and to make them a distinct genus; a separation which the nature even of these birds indicates, and to which they have given the name of *gypaëte*, composed

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* See Natural History of Chili, by the Abbé Molina.

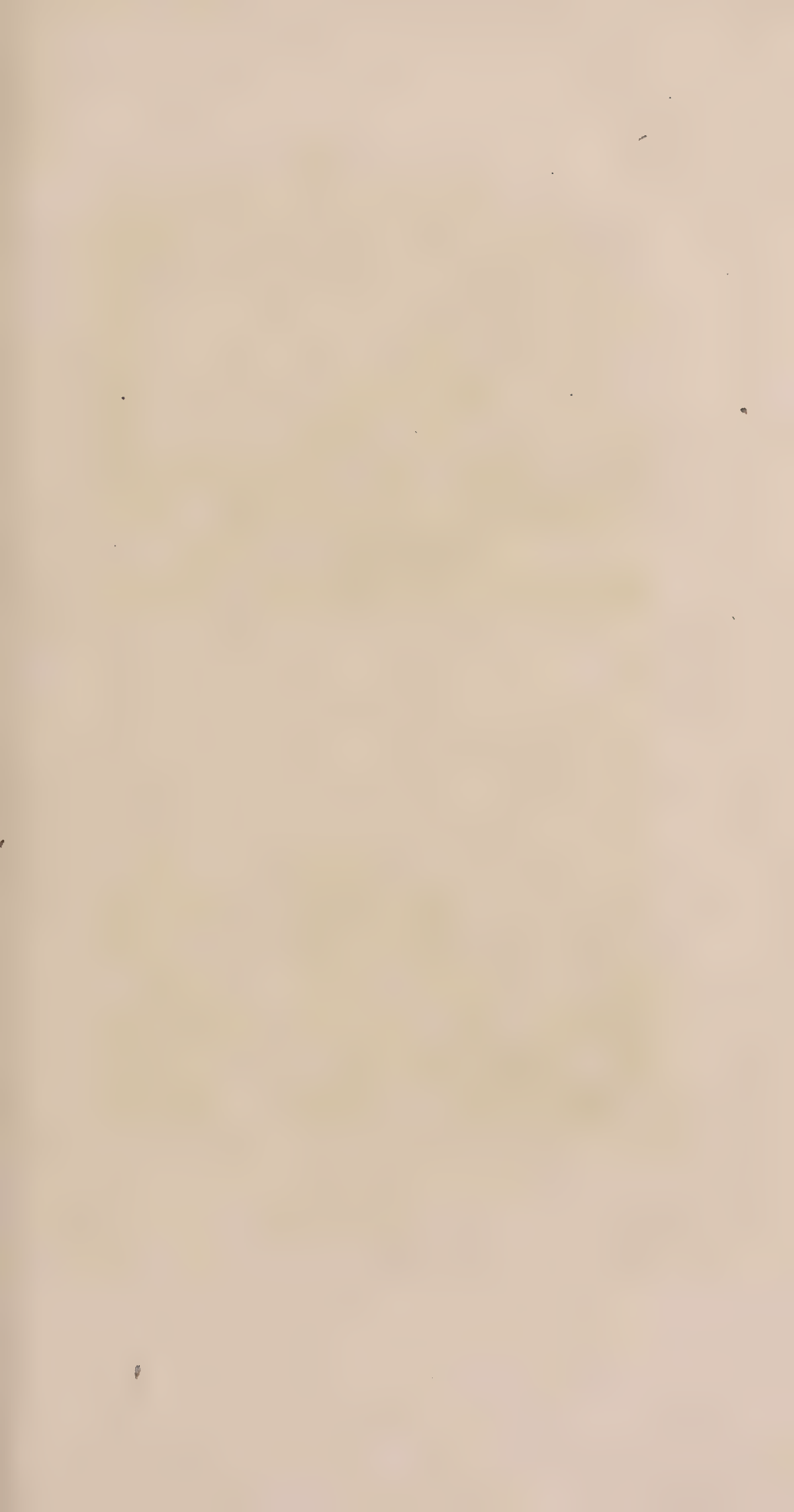
posed of the Greek words *guyps*, vulture, and *aëtos* eagle,* because these birds have great affinities with the eagle and the vulture without, however, being either one or the other.

The distinctive characters of the gypaetes are a large head, the top flat: the beak straight, strong, elongated, and with the upper mandible puffed, crooked at the end, and longer than the under one: the head as well as the throat covered with very short, straight feathers: the feet short and covered with feathers: the talons elongated, pointed, and covered. But that which characterises more particularly these birds, is a brush of hair or stiff bristles, which hangs from the beak and forms a sort of beard.

Like the vultures and the eagles, gypaetes are found only on the highest mountains and inaccessible rocks. But they do not live solitary like the eagles; they assemble in small troops, and devour like the vultures dead animals and corrupted flesh: they have, however, the courage and the audacity of the eagle: so that, by their appetites and their natural habits, they approach as much to eagles and vultures, as by their exterior.

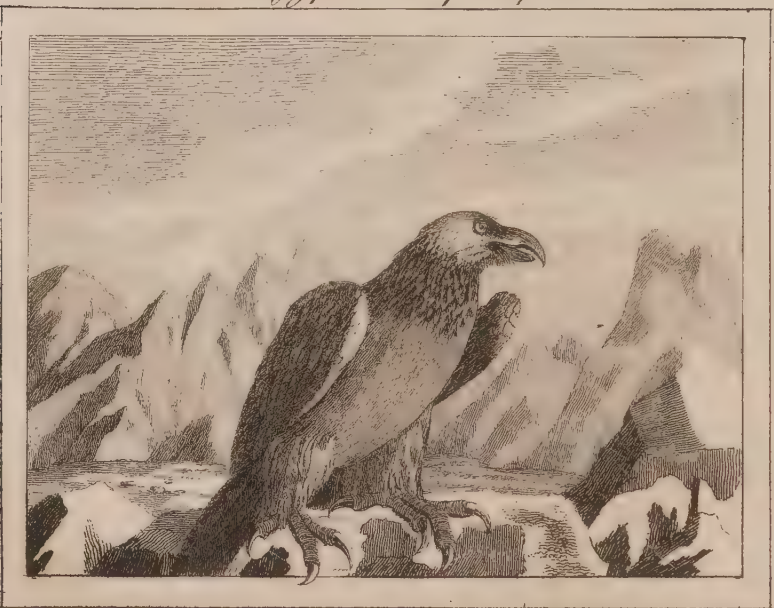
The

* In order to preserve the etymology we ought to pronounce it *gypaete*, and not *gyaete*, as is usually done.





The Gypsaete of Africa.



The Gypsaete of the Alps.

Published by H. D. Symonds June 1. 1808.

The species of this genus are not very numerous: we are acquainted only with four, and even of these it is not certain that they are really separate and distinct species.

THE GYPAETE OF THE ALPS.

THIS formidable bird is the *lämme geier*.^{*} Some naturalists have supposed that it is the same bird as the condor of South America, though this is of a distinct species, and even of a different genus.

The weight of this bird is about ten pounds: its length measures from the point of the beak to the extremity of the tail three feet ten inches; and its breadth between the wings, from tip to tip, when extended, is about eight feet and a half. Its beak is four inches long: it is covered on the top, from the base to about the middle, with numerous long hairs, black and inclining forwards: underneath hangs a tuft of these same hairs,

H 2 which

* These are two German words, and signify literally, the *vulture of lambs*. Trans.

which forms a true beard about an inch and a half long. These hairs are also scattered at the corners of the beak and on the throat, on the eyelids and on the eyebrows. The tail is three inches broad and sixteen long; round and composed of twelve large quill feathers: the wings have thirty-two.

A white down, beautiful and thick, covers the entire head, on the back of which there is a large black spot: the neck and the under part of the body are of a white colour mixed with orange, deeper on the throat and breast, and weaker on the belly, legs, and feet. The under part of the wings is grey: the tail, the covert feathers of the wings and those of the rump, are of a clear grey, bordered with black: the end of the covert feathers of the wings is spotted with orange: the quills of the feathers are white: all the rest of the plumage is of a very deep brown. Some of these birds may sometimes be seen, and particularly the females, that have no orange colour at all upon their plumage; they are then of a reddish brown: the iris of the eyes is of a lively red, and the toes are grey.

The gypaëte of the Alps is not very common on these high mountains, but the species is scattered throughout the whole range; for
they

they are found on the Rhetian, Helvetic, and Noritic branches. It is equally an inhabitant of the Pyrenees and other chains of elevated and inaccessible mountains in Europe. Pallas met with it in Siberia on the granite mountains of *Adou-Scholo*: the Mongols call it *ielloo*: and the Abbé Fortis saw one of these great gypaëtes, that measured twelve feet from tip to tip of the wings when extended, in Dalmatia, where these terrible animals snatch up with their talons and carry to their nests, lambs, and sometimes sheep, and even the children of the shepherds.

Many naturalists have mistaken for a variety of the gypaëtes of the Alps the golden vulture of Brisson.

There are in the Cabinet of Natural History at Paris, two varieties of the gypaëte of the Alps: the one brown, with the under part of the body red, and the toes brown: the other with a plumage and toes blackish, and the head in part white. It is the last variety from whence the plate is taken.

THE CHESNUT COLOURED GYPAETE.

THIS gypaete is found, according to Gmelin, in the mountains of Persia : the difference of climate, however, as well as that of the colours of the plumage, may authorize us to consider it as a distinct species from the gypaëte of the Alps, though naturalists have represented it as merely a simple variety.

This bird has the membrane at the base of the beak bluish, the tail cinereous, the under part of the body, as well as the feet, a chestnut colour mixed with white.

THE GYPAETE OF AFRICA.

THIS is not a variety of the gypaete of the Alps, as some naturalists have presumed, but a separate species, having distinguishing characteristics

racteristics sufficient to entitle it to this rank. For the knowledge of it we are indebted to Bruce, the Abyssinian traveller. He killed one of these birds on the summit of the high mountain of Lamalmon in Abyssinia.

While Bruce was preparing to take some nourishment in the open air, this gypaëte presented itself all at once: he did not pounce from his height with rapidity, but flying slowly and almost grazing the ground, he placed himself near several dishes of boiled kid, and in the midst of Bruce's travelling companions. He first of all fastened one of his talons upon a great piece of meat which was in a pan of boiling water, but pain soon made him abandon it. He carried away a shoulder and a leg of the kid, but still looking at the piece which was in the boiling water. A few instants afterwards he appeared again; and in spite of the cries of the Abyssinians, he placed himself with great fierceness and courage, near the pan of boiled meat, and about ten paces distant from Mr. Bruce, who shot him dead with a musquet loaded with ball.

This large and beautiful bird was eight feet four inches from tip to tip, and four feet seven inches long. It was very fleshy,
and

and weighed twenty-two pounds: its talons were not very pointed, but they were extremely strong: its beak was three inches and a quarter long, and one inch three quarters broad at its base. A long tuft of hair, dividing itself into the form of a fork, issued from under the neck. Its eye was very small in proportion to its size, for it was not more than one quarter of an inch in the aperture. All the upper part of its head, as far as the beak, was entirely void of feathers.

When Bruce went to pick up this monstrous bird, he was not a little surprised to find his hands covered with a yellow powder; he turned it up, and found that the feathers on the back yielded also a brown powder, that is, a powder of the same colour as the feathers themselves. There was a great quantity of this powder, and when the feathers were a little shaken, the powder flew as if it had been thrown from the puff of a hair-dresser. The feathers of the throat and belly were of a beautiful golden colour, and did not appear to have any thing particular in them; but the great feathers on the top of the wings and on the upper part of the back, were formed into small tubes, so that when they were pressed, a powder issued
out

out and spread itself over the feathers, and this powder, as already observed, was of a brown colour. The large quills of the wings were also stripped of their feathers as if they had been used; but it is probable they would be renewed.

It is not easy to say why Nature has provided this bird with so large a quantity of powder; all that can be done is to conjecture that it has been given for the purpose of protection against the heavy rains that fall six months in the year in Abyssinia, for it is common to all the other winged inhabitants of this country. The pigeons of Lamalmon are not furnished with this powder, and hence it may be concluded that they are migratory: but the gypaete is indigenous, and is never seen in Lower Ethiopia.

This conjecture of Bruce, as to the use of the powder, cannot be admitted, for, if the gypaete and other birds of Abyssinia be so abundantly provided with it as a defence against the rains that fall in that country for six months in the year, why has not Nature given the same defence to the birds of Guiana, where it rains incessantly for

eight months? Whatever may be the utility, however, the thing itself is remarkable, and it is one of those modifications, multiplied to infinity, with which nature varies the forms and attributes of animated nature.

THE FALCON.

THE SINGING FALCON.

IT is difficult to unite the idea of a singing bird with that of a bird of prey. The harsh and lingering cries of want, the piercing clamours of ferocity constitute all the harmony of birds of this class. And however much these accents may be prolonged, they are never any thing else but mournful and discordant sounds, which disgust the ear and make the mind melancholy. The species of falcon which Levaillant has discovered in the southern countries of Africa, and which he has denominated the “singing falcon” possesses says he “an organ with which he alone, exclusively of all other birds of prey, seems to be gifted, if we except the *vocifer*.” But this *vociferous eagle*, utters, with effort, loud cries, braying intonations without inflexion, without any thing agreeable, and which are reduced, according to Levaillant himself, to

four syllables *ca-hou-cou-cou* pronounced and repeated always in a similar manner.

The voice of the singing falcon is, according to Levaillant, equally strong. Perched upon the summit of a tree, near its female, which it never quits all the year, or else in the vicinity of the nest where she is brooding, he sings for hours together, and in a particular manner. Like our nightingale he is to be heard only in the morning at the rising of the sun, in the evening at its setting, and sometimes during the whole night. It must be observed that Levaillant has not, as usual, expressed by syllables or by musical notes the *particular manner* in which this bird sings. We should deceive ourselves were we to compare its sounds to the harmonious modulations of Philomela ; and it is evident that Levaillant has made mention of the nightingale only to intimate that it has the particular circumstance in common with the singing falcon, of chaunting its amours in the evening and during the night. But it is the *vocifer* that forms the true point of comparison : it is to his resounding *ca-hou-cou-cou*, that we must approximate the equally boisterous cry of the singing falcon : it is to clamours a long time repeated, but monotonous, that all its
musical

musical art is reduced : so that this rapacious bird ought rather be called the *crying* than the *singing* falcon, and we must not censure nature so grossly as to imagine that she would unite delicate and touching sounds to ferocious tyranny and the revolting habits of carnage.

But if this singing falcon, like all the birds who share his insatiable avidity and bloody habits, possess not the charms of voice, he cannot be refused elegance of form nor beauty of plumage : and it is not in birds only that harshness and cruelty of character are contained beneath the most flattering external appearance.

This bird is almost entirely of a light grey, the shades of which are deeper on the top and sides of the head, and on a part of the scapular feathers. The rump is white and on each side there are stripes and spots of a greyish brown. The belly and the legs are whitish with transversal lines of blueish grey. The wings are black ; the tail blackish and terminated with white ; large white bands cross it all along. The iris of the eyes is a deep reddish brown ; the beak and the claws are black ; the base of the beak and the feet are yellow, and become an orange colour, in the season
of

of their amours. When the bird is young its plumage is considerably intermingled with a reddish colour.

The size of this bird is about the same as the falcon of Europe: its feet are very long, and this particularity approximates it to the sparrow-hawk, with which it has greater affinities than with the falcon. The female is one third stronger than the male. She lays four white eggs, almost round. "In voyages such as I have made," says Levaillant, "one tastes of every thing: I have eaten of these eggs when newly laid; when baked, the white retains a great transparency and a blueish tinge: the yelk is of a fine red or saffron colour, and the inside of the shell of a green colour."

Levaillant found this beautiful species of falcon in Caffraria and the neighbouring countries, as well as in the Karrow and Cambdeboo.

THE FALCON OF THE ISLAND OF JAVA.

THIS falcon was only seen once in the island of Java by Van Ernest, a naturalist of the north : he was perched upon the point of a rock, where he waited for the small birds that flew about. He was either fatigued, or else not very fierce : for a negro approached near enough to kill him with a stone.

The same naturalist who relates this fact, has designated the falcon under the name of *Falco testaceus*, or brick colour*, and Daudin has rendered it by *testacé*. But this word not being received into the French language as indicative of a colour, Sonnini did not adopt it, but rather chose to call the bird after the country whence it came, until future details shall confirm whether the island of Java be its natal place, and under what name it is there known.

Its size is that of the common goss hawk, and its length about twenty one inches. Its
beak

* From the Latin, *Testa*, a brick.

beak is very crooked, its tail exceeds the wings a little, and the feet are very short. It has the feathers of the head, the top of the neck and the back of a reddish brown, and their quills blackish; the scapulary feathers and those of the rump are of a clear red; the throat and the front part of the neck whitish; the feathers of the breast of a reddish white, and the quills brown: the belly and the legs are of a reddish, uniform brown; the under covert feathers of the tail white; the large quill feathers of the wings blackish, with whitish spots; the tail brown on the top, and on the under part white, with fine transversal blackish spots; the feet and the toes yellow; the talons black, and the beak blueish.

Van Ernest observed in the collection of the Society at Batavia another falcon very similar to this, and which he considers as the female of the falcon of Java, from which it differs only in the paler tinge of the plumage and by the reddish colour of the under covert feathers of the tail.

THE KOBER.

THIS is a species of falcon called by the Russians *Kober* and *derbnischock*. It approaches to nocturnal birds from its habit of flying and hunting during the evening and night, a circumstance doubtless owing to the sensibility of its eyes: so that this bird, which has all the external characteristics of the falcon, differs from it nevertheless by discrepancies of formation yet more decisive, and which pronounce it a nocturnal bird. It is one of those numerous beings, which mere systematists cannot comprehend, and of which nature has availed herself to connect mutually the animals which she has varied with an admirable profusion.

This species is common in Ingria, all Russia, and in Siberia, where it has been observed by various travellers well skilled in natural history. It is most frequently in the environs of Lake Baikal.

The prey of these birds consists principally

of quails : they place their nests in the holes of trees which is a still further similarity with nocturnal birds.

They are not larger than a pigeon : their feet are naked. The skin which is upon the beak, the eye-lids, and the feet is yellow : the head, and the covert feathers of the legs and the under part of the tail are brown ; all the body is of a brown colour, shaded with a bluish tinge, with the exception of the belly ; the wings are of a bluish brown ; the first seven large quill feathers have their tips blackish. The tail, consisting of twelve large feathers, is brown both above and below.

THE FALCK.

THE name of *Falck* has been given to this bird in honor of the traveller who introduced it to the notice of naturalists,* and because the colours of its plumage do not present any characters sufficiently striking to serve as a denomination that may distinguish it clearly from

* Falck. Voyages, Tom. iii. p. 329.

from other birds of the same species. Besides, the names by which it has been designated by ornithologists who have spoken of it since Falck, are still more improper. What difference, for instance, can be found between the epithets *vespertinus* and *vespertinoides* given by some to the preceding and the present bird, and the appellations *nocturnal* and *watching*, affixed to them by Daudin? And since we are ignorant of the real name of the second of these birds, that is, the name which it bears in its natal country, the appellation of *Falck* will at least recall to memory the traveller who discovered this species, or who first mentioned it.

Like the Kober, this bird is a nocturnal falcon: it does not commence its chase till the evening, and continues it during darkness; but it is one half less than the Kober, and it hardly weighs two ounces. It inhabits nearly the same countries: it is found in Permia, a province of Russia, in Siberia, &c. &c.

It has the membrane at the base of the beak, the eye-lids, and the feet yellow; the legs black, the neck, the breast, and the belly of a colour nearly brown, spotted with white.

OBSERVATIONS ON THE BUTCHER BIRD.

By Sonnini.

THE wickedness of the butcher bird has become proverbial: we compare to it quarrelsome and peevish women: but as loquacity and sourness of character do not always exclude the existence of good qualities, so we find many in the butcher bird. It possesses in a high degree that courage which multiplies strength, and that prudence which foresees and avoids the wants of the future: it is not even useless to agriculture, and the cultivators of many countries hold it in much esteem, because it wages war with field mice and other vermin: it destroys also many noxious insects, and particularly May bugs, for which food it has a decided predilection. Thus its wickedness has nothing pernicious in it; it turns to the profit of man, as it frees the harvests and the groves of many destructive animals: and under this relation, the butcher bird, as it never injures the crops,
merits

merits like almost every other bird of prey, to be preserved and even favored in its propagation.

The appetite which the butcher bird possesses for insects, leads him to use precautions that he may not be disappointed of his favourite food: and this foresight supposes combinations which denote a great sagacity of instinct. The insects appear only at stated periods, and some species, particularly the larger ones, only appearing during a very short time, the butcher bird would often be exposed to the pains of hunger, if it did not form a sort of magazine where it finds, upon necessity, resources which secure it from inevitable distress, but for these means. It is not in the holes of trees, nor in the earth that it deposits these provisions, which are of such a nature that they would soon corrupt if kept in a close place: it is in the open air that the butcher bird arranges them here and there; it sticks its superfluous prey upon the thorns of bushes, and it knows where to find it when in want of it.

The custom of hanging its prey upon thorns, &c. is not peculiar, as Levaillant thinks, to foreign butcher birds: it seems to be common to every species.

The

The flight of the butcher bird is similar to that of the magpye, by successive dartings and undulations, which arise from its wings, when extended, being round and presenting but a small surface. This difficulty of flight obliges the bird to endeavour to raise itself in the air over its prey, so that it may pounce upon it and strike it to the earth, where it instantly seizes and destroys it. It is in this manner that the butcher bird succeeds in seizing small birds. Falconers have availed themselves of its courage and address, and have sometimes reared it for artificial purposes. Turnerus relates that Francis I. was accustomed to hunt with a tame butcher bird, that spoke and came back upon the hand; hunters also have made use of the butcher bird to discover the approach of a sparrowhawk; the former, on such an occasion, never failing to utter a peculiar cry, and in Sweden they are much employed for this purpose. When the butcher bird has taken a bird, it opens the skull and eats the brains, which forms one of its peculiarly delicious morsels. It makes its nest in the month of May, in the recesses of solitary forests, and sometimes also in tufted and spiny hedges: it employs for this purpose hay, carefully chosen, and
very

very fine small fibrous roots, of which it forms a semi-spherical building of one inch and a half in thickness : the interior of the nest is furnished with a profusion of feathers and down ; and the female deposits on this soft bed from three to five white eggs, spotted with a dirty brown, which assumes a blackish tinge towards the large end of the egg. The young ones, when hatched, are entirely naked.

It is said that the butcher bird does not exist above four or five years ; but one of my friends preserved one a much longer time : he nourished it with boiled and hashed meat.

This species is found at all times in the mountains of Lorraine : they may be seen perched at the extremities of the highest and most isolated branches of trees and bushes : and this position is necessary to the bird in order that he may rise into the air, or precipitate himself without obstacle upon his prey.

The butcher bird is of a clear cinereous grey colour on the top of the head, the hind part of the neck, and all the upper part of the body ; the scapulary feathers are white. On the sides of the head is a large black band, which, issuing from the corner of the mouth
passes

passes above the eyes, and extends towards the commencement of the neck. The throat, the fore part of the neck, and all the under part of the body are white. The large covert feathers of the wings are black, and the quills white, from their insertion to about half their length, and the rest is black. Twelve feathers form the tail; the two middle ones are white at their origin, then black, and terminated by white: the three next on each side have the same colours with the exception that the white at the extremity increases in proportion as the quill is more exterior: the fifth feather is entirely white on the outer part, marked with black at the middle, on the interior side; and lastly, the outermost one is totally white; the beak, the feet, and the claws are black.

The ordinary length of this bird is about nine inches and a half from the tip of the beak to that of the tail: its breadth from point to point of the wings when extended, is thirteen inches, and its wings when folded, project about one quarter over the length of the tail. The nostrils are covered with small feathers and black bristles; and similar bristles are visible at the corners of the mouth.

The female is distinguished from the male
only

only by a few shades of brown on the under part of the body. There are also some other differences, but they are so slight and so little remarkable, that they are hardly perceivable.

FOREIGN BIRDS WHICH HAVE AN AFFINITY
WITH THE BUTCHER BIRD.

THE FINGAH.

THIS East Indian bird, called at Bengal *fingah*, is of a species very distinct from every other kind of butcher bird. The form of the beak, the mustaches or hairs which cover its basis, and the strength of its legs, have induced some naturalists to consider this as a *butcher bird*, though its tail is formed very differently from that species, in which the middle feathers are the longest, while in that of the *fingah* they are much shorter than the side ones, so that the tail appears forked, that is, hollow in the middle towards its extremity. The beak is thick and strong, arched, something like that of the sparrow hawk, but longer in proportion to its thickness, and less

VOL. VI. L crooked,

crooked, with the nostrils equally large ; the basis of the upper mandible is surrounded with stiff hairs. The entire head, the neck, the back, and the covert feathers of the wings are of a brilliant black, with a slight shade of blue, purple, and green, and which perpetually vary according to the reflection of the rays of light. The breast is of a cinereous colour, dull and dark ; the whole of the belly, the legs, and the covert feathers of the under part of the tail are white ; the legs, the feet, and the claws are of a blackish brown.

Some naturalists, and among those Mr. Edwards, have doubted whether this bird ought to be classed with the butcher bird, or with the pie species, for it appears to have an equal affinity with both of them.

THE RED TAIL.*

THIS East Indian bird is about the same size as the grey butcher bird of Europe : the
beak

* This bird is to be found in almost the whole of India.

Its

beak is of a cinereous brown colour; the iris of the eye is whitish; the top and back of the head black; under the eyes there is a spot of a bright red colour, terminated with white, and on the neck four black spots of a circular form; the upper part of the neck, the back, the rump, the covert feathers of the top of the tail, those of the under part of the wings and the scapulary feathers are brown; the throat, the upper part of the neck, the breast, the sides, and the legs are white; the covert feathers of the under part of the tail are red; the tail is of a clear brown colour; the feet and the nails are black.

THE BRUBRU.

THE name which Levaillant has given to this bird expresses at once its cry: it pro-

L 2

nounces

Its length is about five inches. Levaillant observes that Brisson has described this bird twice over, first by the name of *Red tail*, and afterwards by that of the *tufted blackbird of China*; and he asserts that it is not a butcher bird, but actually a blackbird.

nounces distinctly the syllable *bru*, repeated two or three times successively, and resting a little upon the letter *r*. The same naturalist also compares the notes of this butcher bird, which he discovered during his travels in Africa, to the sounds of the greenfinch during the season of pairing, when perched upon the top of the trees; it calls the female.

The male *brubru* is entirely black on the upper parts of the body with a shade of white on the back and rump; and it is wholly white on the under parts: a white line, beginning at the base of the beak, passes above the eyes, and terminates on the sides of the neck: a great white spot covers the middle of the wing of which the quill feathers are edged with white: the quill feathers of the middle of the tail are black; the others have a whitish tinge, which increases in proportion to their distance from the middle of the tail: so that the last feather on each side is entirely edged with white. The eye is brown, and the beak black.

The *brubrus* are frequently found in small troops, except during the season of love, when each couple lives separately; they form their nest with moss and small roots, and they line it with wool and feathers. They lay
five

five eggs; which are white, spotted with brown.

Levaillant did not begin to perceive this species of butcher bird until he approached towards the twenty-eighth degree of south latitude on the banks of the great river, where these birds are very numerous and not at all ferocious. But he never met with it in his travels towards the eastern part of Africa, nor in the interior of the country, on his return from Caffraria.

THE CUBLA.

THE species supplies, on the eastern coast of the south of Africa, the place of the *brubru*, which is not to be found there: they live, like this last, in small troops of six or seven, but they present a more perfect image of a society without trouble, without dissention, where mutual good understanding and concord reign, and in which the pleasures and the pains are divided, and the good as well as the

the evil reduced to common use: a society very rare among animated beings, and for examples of which we are almost compelled to seek among the wild retreats of Africa, where nature only reigns, and where man has not yet been tempted to ravage.

If one of these birds, which unites in itself, in an interesting degree, the social qualities, perceives a nest of caterpillars, of which they are peculiarly fond, he calls, by a particular cry, his companions, in order to communicate to them his discovery. When the season of love arrives, the little troop separate from each other, and the society of friends divide themselves into pairs of lovers: they place their nests, formed of moss and flexible roots interwoven, in a tranquil spot upon bushes, and the female deposits there five or six eggs.

The cry of the male may be expressed by the syllables *chá, chá*, resting considerably upon the vowel. When he perceives a man or an animal, he erects his feathers and spreads his wings a little, and he approaches towards him, constantly repeating his cry. These birds are in general but little ferocious, and very common, especially in the forests of Anteniquoi.

The

The female of this species is smaller than the male, and its colours are less fine. The male has the head, the top of the neck, and the back, of a fine black; long silky feathers, very fine, and of a dazzling white cover the rump. The scapulary feathers are variegated with black, white, and a greyish tinge: all the under part of the body is white; the quill feathers of the wings and of the tail are black, those of the first being bordered exteriorly with white, and those of the latter terminated with that colour; the first quill feather on each side is embroidered externally with white. The eye is of a lively yellow; the beak and the nails are blackish; the young bird is of a reddish grey instead of white, and a reddish brown instead of black.

THE SILENT BUTCHER BIRD.

WITH the idea of the butcher bird naturally presents itself that of a clamorous, noisy being. Here, however, is a species which forms

forms an exception. Levaillant, who saw many of these birds in Africa, and in all seasons, never heard it utter any cry or attempt any note : and this particularity is sufficiently remarkable to form the basis of its denomination. It is very common in the forests of Antiquoi, and also in many parts of the interior of southern Africa, but more particularly in those regions covered with forests.

This bird is a little larger than the common red butcher bird ; it is a fine black on the upper part of the body, and white on the under. It has a white stripe on the wings, and a border of the same colour on the exterior side of the lateral quill feathers of the tail. The beak is horn colour, and the iris of the eyes brown ; the feet are of a clear brown, and the claws black. The female is something smaller than the male, and the colours of her plumage are less pure and less strongly marked. These birds live in pairs, and feed on insects. It is in the month of November that they betake themselves to the pleasing care of propagating their species. Their nest, which they build upon trees, is constructed with a great deal of art ; they employ for this purpose small flexible branches, and they line it with a soft thick bed of hair.

hair. They generally lay three or four eggs of a pale green colour, daubed, as it were, with a light reddish tinge. When first hatched, all the young ones, without distinction of sex, resemble entirely the mother.

THE OLIVA.

TO name this bird is almost to describe it. It is in fact of an olive green colour all over the body : underneath, it is yellow with shades of olive green upon the sides, and the under covert feathers of the tail. A yellow band surrounds the fore part of the head ; the eye is placed in the middle of a large black spot on the upper edge of which there runs a yellow line. The tail is oblique, and its quill feathers, (with the exception of the two middle ones, which are of the same olive green as the rest of the body) have more or less of yellow on their exterior side. The beak is black ; the iris, the feet, and the talons are brown.

But it is not till its second year that the plumage of this bird acquires the colours

which have just been described. Previously to this age it changes its livery twice, and at each mutation presents so distinct an appearance, that it might be taken for quite a different species. It would be difficult to convey an idea by words of this astonishing variation of plumage at the different epochs of the youth of this bird : well delineated plates alone could give a clear and precise idea ; and the curious reader therefore is referred to the plates in Levaillant's work, in which there are three figures of the oliva, executed with that fidelity which characterizes all the delineations of this naturalist.

The size of the oliva is nearly the same as that of the red butcher bird : the female is a little larger. She lays usually five eggs, and the nest is placed on trees and in bushes. Levaillant found many of these birds in the forests which border on the bay of Logoa, as well as on the borders of the Gamtoos, the Soudag, and the Swacte-Kop.

KITES AND BUZZARDS.

FOREIGN BIRDS WHICH HAVE AFFINITIES
WITH THE KITE AND THE BUZZARD.

THE KITE OF EGYPT.

WHETHER it be that the kite species undergo variations from the influence of temperature and climate, or that they arise from the appropriate distinctions of age, there are various races of this bird in different regions of the old world.

Forskahl describes a species of kite which he found in Egypt. During winter, it traverses with rapidity the fertile plains covered by the mud of the Nile. It is about a foot and a half long, and has the under part of its body of a fine ferruginous brown colour. The upper parts are tinged with a cinereous

colour, more or less deep. The under part of the wing is of a brownish grey; its tail is very oblique. The upper part of the leg is covered with a downy plumage, and on its head are feathers of a reddish grey. The quill feathers of the wings, black at their extremities, are brown with grey stripes in the interior.

Although this bird has not any feathers of a whitish colour on the head, yet it differs but little from the European kite, and it may be considered as being of a species, if not absolutely the same, yet very approximate to the former. It is well known that our kites emigrate during the winter into these countries. It is very probable that a moulting, occasioned by the change of country, and producing other shades of plumage, may have altered the external appearance of this bird, in which, otherwise, we find the same habits as in those of Europe.

THE KORSCHUN.

THE new Memoirs of the Academy of Sciences at Petersburg make mention of a variety of the kite* which they call *korcszun*. The extremity of all the quill feathers is terminated by a border of a chesnut colour: this tint is also to be observed on the head, the nape of the neck, and the neck itself. The membrane of the base of the beak is greenish; the feet are covered with down, and the tail is about a foot long, while the body is not more than ten inches in length. It is found towards the river Ural.

* Vol. xv. by S. G. Gmelin, p. 445. tab. 2, fig. A.

THE SIBERIAN KITE.

THIS is also another variety observed by the traveller Lepéchin* in the deserts of Jaik. Its length is nearly two feet; its beak is black, and the circle of the eyes white. The sides of the head are brownish; the rest of the neck is of a fine chesnut colour: the quill feathers of the wings and of the tail are of a violet black, and the extremity of each quill feather is marked with a white spot.

THE PARASITICAL KITE.

IF we knew all the different races of kites which will be found one day in the various countries

* Resie durch Siberien, T. ii. p. 180, tab. 2.

countries of the globe, the number would be very considerable; above all, in those countries under the equator, where the fecund earth daily discloses living productions and animal prey. The regions of Africa present in fact various species of carnivorous birds. Among these wild and ferocious beings is found a singular sort of kite which is very common in the southern part of this country. Among the Caffres, and the Namaquois the parasitical kite has a more bold and decisive character than our kite: he attacks with more temerity; he pounces with more impetuosity on his prey; and when the smell of flesh or the sight of some weak animal attracts it, he rushes, and tears with ravenous voracity every thing which he touches. He becomes enraged in the pursuit of his victim; he disputes it courageously with other carnivorous creatures, more cowardly or more weak than himself; and retreating from his combats a conqueror, he darts towards the heavens, uttering loud and piercing cries in sign of triumph.

This continual rapacity which urges the animal incessantly to the pursuit of prey, is not however the consequence of deliberate courage which surmounts danger by intrepidity: it is a vehement appetite for flesh, a
thirst

thirst for blood, which consume him. Like those harpies which ancient mythology has painted, the parasitical kite has acquired this name only from the importunate audacity with which he comes to snatch the nourishment which man has prepared for himself. He darts even, near the margin of rivers, upon fish which he perceives while in the air: all animal prey is in fact acceptable to him. Levaillant affirms "that the passage of these birds in the same countries is always at the same hour nearly; it appears to be a custom peculiar to this African and to the European kite." He says that he has often verified this observation.

This bird is about the size of our *hen-harrier*; its eyes are of a hazel colour, and its beak is yellow as well as its feet: a tawny colour spreads itself over the upper parts of the body, with shades rather browner towards the occiput and back; the throat is of a whitish colour. The belly, the legs, and the under part of the tail are of a fine mahogany colour, variegated with other tints. The large quill feathers of the wings approach towards a blackish brown, which is somewhat lighter on the smaller quill feathers. The tail is rather long and sloping; it has some transversal stripes

stripes of a blackish brown on a lighter ground : a light fawn colour borders the extremity of the tail. The plumage of the female is more cinereous and more dull, and the young ones are covered with a greyish down, to which succeeds a brownish plumage that gradually becomes darker and darker. The female is larger than the male.

This bird places its nest in the sombre glens of some solitary rock, or upon an isolated tree in the bosom of the deserts, or even among briars and in uncultivated places. The female lays four eggs with red spots.

THE BACHA.

IT is on the arid and rugged rocks of southern Africa that the buzzard, called *bacha*, is to be met with : among these rocks, burned by a continual sun, this animal utters his lamentable cries. Solitary, upon some overhanging eminence, stretching his piercing sight over the

plains that surround him, he seeks his prey : it is principally on the *klipdas*, a sort of deer, very common in this part of the world, that he makes his daily repast. He delights in repeating occasionally his monotonous tones of *honi-hi*, *honi-hi-hi*, *honi-hi*, *ho-ni-hi-hi*. His head sunk between his shoulders, he watches in silence, and with such remarkable immovability that he is often mistaken for the point of a rock, and thither he carries his victim to devour it at liberty and with a voracity which seems to be increased by anger. It would seem as if these wild and sanguinary manners were made to correspond with the frightful deserts which they inhabit. Love alone unites the sexes of these animals : the female places her nest in almost inaccessible caverns, and lays two or three eggs. The bacha which is about the size of a buzzard, has its legs naked. It is quick in flight. A tuft of white feathers terminated with black, form a kind of crest behind its head, and which it can compress or enlarge. A dirty brown colour covers, *in toto*, the body of this bird, but the under part is somewhat paler and covered with white round spots. Some white and brown stripes are perceivable on the abdomen ; a
large

large band of a clear fawn colour crosses the tail transversely, which is embroidered with white. The female, which is the most powerful, is marked with a whitish yellow.

THE SMALL CRYING BUZZARD.

SONNERAT describes a buzzard which is about the size of a pigeon, and which inhabits the coasts of Coromandel. It is in the midst of the humid fields of rice, where numerous small frogs are to be found, that this bird takes up its ordinary residence, and there also it finds its nourishment.

As this animal is very fierce and wild, it cannot be approached very nearly: and besides, he perceives the hunter at a great distance and takes precautions against his approach. When he is upon the point of taking wing, he utters a continued cry, from which

custom he has acquired the name here given to him.

All the under part of the body is whitish. A cinereous grey covers the upper part; the small covert feathers of the wings are black: the iris and the feet are yellow; the talon of the middle toe is large and sharp on the internal side; the skin round the eyes is red.

THE JACKAL BUZZARD.

AMONG so many rapacious animals which seem formed only to destroy living creatures, man beholds with pleasure certain species which, although depredatory, exercise their ravages only on those animals which are injurious to agriculture. This is a real kindness of nature, which man ought to acknowledge by sparing those animals which she has produced for the purpose of preserving the vegetable productions from the attack of so many parasitical species.

species. This bird is one of these animals: during a whole day it places itself in silence upon a little eminence of earth in cultivated fields. There, his eye always upon the watch, attentive to the smallest motion, he waits for those small destructive quadrupeds on which he feeds. Hence, the colonists of the Cape of Good Hope, where these birds are found, acknowledge their services by the preservation of their lives. The male and female, always in company, approach towards the habitations when the day closes in: they fly in a circular manner in the air, uttering shrill and harsh cries, something similar to the gloomy yelping of the wolf-jackall. Hence its denomination. After having thus described many circles in the air, they alight on the hedges of enclosures where cattle are feeding. It is in the midst of the thickest bushes that they construct their nest with moss and bits of straw. They line it with feathers and wool, on which they deposit two or four eggs.

This bird is very sedentary, very cowardly, and very timid, and yet it is common in the whole of southern Africa, particularly near cultivated spots. Its size is about that of the common buzzard, though more solid: the upper part of the body is covered with a dark
brown

brown colour, which becomes lighter and more intermingled with red on the under parts, which are also spotted with long black marks. The abdomen is variegated with black and white; the colour deepening towards the anus. The large quill feathers of the wings are of an earthy colour; the others are variegated with black and white, the extremities being black. The tail is of a deep red colour, which is terminated by a black band; the under part is of a greyish red. The feet are yellowish. The female, which is larger than the male, is of a dark brown colour.

To this species may be added that which Levaillant has described under the title of *rougri*, because their characters are the same and their manners similar. This last however is not so large nor so powerful as the preceding one: it is also more wild and more fearful, while the former is so familiar that it may be regarded as domesticated. The *rougri* inhabits only deserts.

The female of the *rougri* never lays more than four eggs; the species is also more rare than the jackal buzzard: its form is more dense, its tail longer, and its beak not so strong. Like the latter however, the male and female
always

always keep together. The discrepancies between these birds are to be found only in the colour of their plumage: a deep ferruginous red colour prevails over the whole of the upper part of the body: while the under are of a lighter red, sprinkled with blackish streaks. The feet are yellow; the iris is reddish; the prime quill feathers of the wings are black; the tail is red at top and grey at bottom; the breast and the neck are a whitish grey.

THE OWL.

SOME OBSERVATIONS UPON NOCTURNAL BIRDS OF PREY.

By J. J. Virey.

NATURE seems to pass gradually in animals from one to the other. Nothing is lost in the region of existence. Those animals which, being the weakest are also the most fecund, are destined to become the food of depredatory beings. But, as the shades of night might conceal from destruction those who are predestined to it, there are created, in every class of animals, nocturnal species which, provided with powerful arms, with an acute sense of hearing, and with a piercing sight, traverse the gloomy asylums where those timid races hide themselves, which are
subjected

subjected by nature to the sad fate of a violent death. Among viviparous animals, bats are well known, and those carnivorous animals with crooked claws, such as cats, tygers, lions, panthers, lynxes, &c. and perhaps even bears, rats, &c. It is probable also that some sorts of fish may be found that pursue their prey principally during the night, such as the different kinds of sea dog, &c. Among insects there are various sorts which are nocturnal and depredatory. It is not therefore an isolated law in the system of living bodies, but one of those general principles which enter, as a constituent part, into the universal conception of animated nature.

In nocturnal birds, there are many generic characters, the importance of which is easily perceptible, since they influence principally the vital faculties of these animals. All the owl tribe have a head much larger than the greater part of birds; it is also more flattened, and in a manner so remarkable, that every person knows them at first sight. Their tongue is forked, their body well covered with a thick close plumage, large eyes projecting from their orbits, and surrounded with a circle of feathers; a very short neck, and feathered feet; all of which qualities are nearly distinctive marks of this species of birds.

It has been asked why this bird has been regarded as the symbol of penetration and prudence? and why it was consecrated to the wise Minerva by the ingenious Athenians? How this hideous animal, with its nocturnal hootings, and its awkward, constrained gestures, could delight the goddess of the arts and sciences? According to Aristophanes, cited by Athanæus, this bird was very common among the sterile rocks of Attica, and was the emblem of that city, celebrated throughout all Greece, and which has filled the universe with its renown. According to some, Minerva had the eyes of the owl. Dion Chrysostom cites the apologue of Esop, who says that it was on account of the penetration of this bird into the secrets of futurity, that the divine Pallas delighted in it. In my opinion, the true cause of this predilection of a goddess for so dull and stupid a bird has not yet been ascertained. If we recollect how much the extent and volume of the brain influence the intellectual faculties, and how well this was understood by the Grecian artists, who introduced it into all the statues of their divinities, we shall see that the owl presents a very considerable skull and a face much flattened, which suppose a great increase of intelligence in the animal.

However,

However, all the extent of the head is not filled with the brain in the owl: but it has, notwithstanding, all the exterior appearances of a wise and reflecting bird. Tranquil during the day, it seems to meditate profoundly: its large eyes, full of fire and penetrating to a distance in the obscurity of night, seem to give him an air of sagacity. All these characters apply, more or less, to the whole of the nocturnal species of birds: and in fact, however diffident and awkward their motions during the day may appear, however constrained and ridiculous they may seem, it is to be ascribed solely to the dazzling influence of the sun upon their eyes. Behold them, when twilight begins to cover the earth with its grey and sombre mantle: then they unfold their limbs at liberty; then they make the rocks, the ruined castle, and the dilapidated mansion echo with their melancholy hootings. The superstitious and feeling recluse who wanders among the tombs, hears this dull and plaintive voice; he believes it to come from the bosom of the earth, from the charnel-house of the dead; the light fluttering of the bird of night startles him, and he fancies he hears the unblessed dead wandering near him over the ground that covers in vain their bones. He believes that

they call him to his last asylum; the sterile pomp of grandeur and transitory pleasures of life touch his heart no longer: he beholds only the coffin, and the dark cemetery where repose in peace and in inglorious confusion the turbulent and haughty monarch, the peaceful and unambitious shepherd.

Such are the ideas that the timid vulgar have conceived when obscurity, veiling objects from the sight, opens the vast and boundless road to imagination. Such is the prejudice which the weakness of reason propagates, and which renders ominous the bird of night. Yet, far from being injurious, they wage war with those species of minute, destructive animals that undermine our dwellings, pillage our provisions, or ravage our gardens. As they swallow mice, rats, and dormice entire, they often regorge lumps of hair, skin, and bones, which they have not digested. They often touch, in flying, the surface of the earth, on which, in general, their prey is to be found: the flight is slow and gentle: they seem to fear to announce their approach by any noise or to disturb the silence of the night: their mournful hootings are heard only during the season of love. The greater part of them nest in the holes of trees, or in some ruined place,

place. They lay two or three eggs, which the father and mother alternately sit upon, and they watch over their youthful family with extreme care.

These animals have a peculiar smell, a sickly, insipid, nauseous odour: this is also observable in the greater part of birds who place their nests in close, confined holes: perhaps this smell may arise from their nourishment, or from a particular secretion of some hitherto undiscovered glands.

It appears that some European species of nocturnal birds are not unknown in the new continent, above all in the southern regions: they are more common however, in cold and temperate countries, and the greater part of them also have their feet covered with feathers.

Their manner of hunting is a sort of ambuscade: they dart, unexpectedly on their prey, like lions, tygers, and lynxes; they do not pursue them. There is a very great analogy between the habits of these birds and those of quadrupeds, and their conformation approximates them still more. Their cat-like head, their large eyes capable of nocturnal vision, their crooked claws, and their short
intestines,

intestines, assimilate them as far as it is possible for two beings of different classes to be.

In proportion as the senses approach towards perfection in an animal, their other part are defective. This law applies equally to nocturnal birds of prey : their flight is as imperfect as their hearing and sight are excellent.

FOREIGN BIRDS

*Which have an Affinity with the different
Species of Owls.*

THE PRETTY HORNED OWL

(Strix Pulchella.)

IN the wild and uninhabited deserts of Tartary where an eternal winter reigns, are found various birds of prey, that interrupt the dreary silence of those plains, which is itself more horrid. It is a consolation to know that there is something bearing life near you,
though

though that consciousness arises only from the gloomy accents of nocturnal carnivorous beings: it is preferable to that silent, that immense solitude which terrifies the soul.

The pretty species of owl, discovered by the celebrated professor Pallas, and described by him*, inhabits, in general, the neighbourhood of the Siberian habitations near Catharineburgh: it is found also near the shores of the Wolga, and in the southern regions towards the Samara and the Jaik.

Its size is about nine inches in length: it does not weigh three ounces. A pretty cinereous grey colour, finely undulated with ferruginous brown spots, and white points, cover the upper part of the body. White oblong spots are scattered over its wings. Its yellow tail has some brown stripes with points of the same colour. The iris of the eyes is yellow: the under part of the body is whitish and undulated with spots of a blackish hue. One of the quill feathers of the wing is notched: the length of the wings exceeds the end of the tail which is round: the legs are covered with a down in the form of undulated spots: the nails are brown.

We

* Voyages, vol. 1. App. No. 8. p. 711.

We have no details upon the natural habits of this bird, or upon the number of eggs which the female lays ; but it may be supposed with sufficient probability that they are analogous to those of the same species. The form of this animal approaches however, nearly to that of the owl.

THE MOTTLED OWL.

THIS bird is found at New York. The female lays its eggs in the month of May, and its young commonly amount to the number of two or three. The total length of this bird is eleven inches. Its face is whitish with light brown spots. The covert feathers of the wings bear large white spots upon a greyish ground, which covers the whole of the upper parts of the body. The feathers of the breast are dotted with black. The under part of the body is of a pale red colour. Each feather on the breast is terminated with white.

THE GREAT HORNED OWL OF CEYLON.

THIS is a large species of the horned owl, which has been found in the island of Ceylon, and which, most probably, is also to be found on various coasts of southern Asia. It may also be suspected that it exists in the island of Sumatra, since Marsden, who has written a very good description of this island, speaks of a species of nocturnal bird : but he gives no description which may lead us to establish the identity of the species.

The horned owl of Ceylon is almost two feet in length. Its auricular feathers are short and pointed ; its iris is a saffron colour ; a dark brown is the prevailing tint of the body, but it becomes weaker, and approaches towards a yellow on the under parts. The feathers which surround the face are of a red colour approaching to brown, striped with black. These black stripes are also observable on the prime quill feathers of the wings, and transversally on the tail, which has also some

white and yellow lines upon it. The feet are almost naked ; the nails and the beak are of an obscure colour.

We are ignorant of every thing relating to the manners of this bird, and the mode in which the female lays her eggs. It delights to inhabit the rocks and woods of this island, and appears to be less affected by the splendour of day than the other congenerous species.

THE OWL OF COROMANDEL.

THE bird which Sonnerat has described under the name of the *small owl of the coast of Coromandel*, is not so large, by one third, as the common owl. A reddish grey spotted with white, forms the general colour of the plumage on the upper parts of the body. The spots are smaller towards the head and neck, and the same tint is observable on the small quill feathers of the wings : they have besides transversal bands of the same colour, and are bordered by a reddish tinge : the large quill feathers

feathers are more obscure, with reddish spots : all the under part of the body is of a reddish colour as the ground, crossed with black bands disposed transversally. The feet, covered with feathers, are also reddish. The beak and the claws are brown ; the iris yellow.

THE MEXICAN OWL.

THE individual of which we are now going to give a description is preserved in the gallery of the Museum at Paris. To this species also belongs the *Asio Americanus* of Brisson, which is the same animal and bears the same name (*tecoloth*) according to the testimony of Fernandez.

The total length of the Mexican owl is fifteen inches, being nearly the same as that of the common owl. The feathers of its frill or collar are bordered with red, and are black all the rest. This pale red colour, spotted longitudinally with black, covers all the up-

per part of the body. Various red and white feathers, with black stems are observable under the throat. Blackish and cinereous coloured transversal bands prevail upon the wings : the tail has a number of large irregular rays of a brown colour : the under part of the body is ferruginous : the breast has yellow spots : the rump and the anus are white, intermixed with black spots. The edge of some of the quill feathers of the wings is notched : they are rather shorter than the tail. The feathers of the legs and the feet are of a cinereous red : the iris is yellow : the orbits cinereous ; the beak yellow, as well as the feet ; the claws black.

P. Feuillée found this animal at Mexico, and he has given a very exact figure of it. Peter Barrere describes also this bird under the name of *feliceps Americanus*. Of its natural habitudes nothing is known.

THE WHITE TUFTED SCREECH OWL.

IF there be a connecting link between the species of the large horned owl and that of the screech owl, doubtless the present one, described by Levaillant, would be that intermediate chain.

This bird has not the sort of horns common to the former, but instead, a kind of long, flexible feathers, which do not erect themselves, but fall on the sides of the head. They spring from near the basis of the beak, and, passing above the eyes, descend towards the lower part of the neck. The colour of these feathers is very brilliant, and the end ones are longer than the rest.

The size of this bird approaches towards that of the small horned owl. Its wings do not extend to above one half of its tail. A reddish brown colour, finely striped with deep brown lines and intermixed with white spots on the wings and tail, form the prevailing colour

colour of the upper parts of the body: the front and under part have a whitish ground, tinged with a light red on the sides and breast, and covered with fine stripes of a brown colour. The tail is rounded at its extremity: the legs are covered with down: the toes are brownish: the beak is yellow.

This species, described by Levaillant, is found in Guiana: it appears to be very rare, and has some affinities with the *tera chyotos* of Linnaeus.

THE CASPIAN SCREECH OWL.

WE are of opinion with Pallas, that this may be considered as a distinct species. It seems however, in some of its habits to have an analogy with the screech owl of Coquimbo; for it prefers to build its nest in some depression of the earth on the arid soil of the deserts near the shores of the Caspian sea. It is also scattered over various countries of Siberian Tartary,

Tartary, where S. G. Gmelin had met with it before Pallas.

The size of this bird is about that of our screech owl : the frill round its neck is of a pure white colour, mixed with some black and yellowish streaks ; all the upper part of the body has a yellowish ground, which becomes somewhat paler as you approach towards the under : the quill feathers of the wings are yellowish and spotted with a dark brown ; the tail, which is shorter than the wings, is rounded, blackish, and has some stripes of a deeper colour ; besides this, its edges are whitish. There is a blackish spot above the eyes. A yellowish down covers the feet, the toes of which are terminated by claws of a blackish colour : the beak is black ; the iris of a pale yellow.

THE SCREECH OWL OF JAVA.

THE different species of nocturnal birds are spread over the most distant countries of the

the globe and over both continents. In fact, they are not, as in the class of quadrupeds, beings fixed to the soil, and whose spreading is limited by the ocean. Transported by powerful wings, and moved by muscles that rarely tire, birds of a lofty flight traverse the vast latitudes of the earth. Our species even of nocturnal birds, which seem too weak for long voyages, and which cannot fly at all during the day, and which are confounded by the light of the sun, are yet found as far as the Cape of Good Hope, and often in many of the regions of America: and as they have been inured for a length of time to these climates, they have undergone, like all animated bodies, variations arising from the influence of the temperature and the soil. Birds have not a prescribed country, like quadrupeds, in the same regions. The bird of the north can live beneath the torrid zone; but the quadruped, more dependent on the soil, and more subjected to its lively influence, cannot equally brave the snows of the pole, nor face the fires of the south.

M. Wurmb discovered in the island of Java, a screech owl, which he has very succinctly described. Its body is cinereous, with shades of a reddish colour; on the upper part of the
body,

body, there are observable, some white spots, and also some black ones. These last are also to be found on the under parts of the body, the ground of which is white, streaked with a dirty and cinereous yellow colour, which becomes deeper on the rump.

THE SCREECH OWL OF TRINITY ISLAND.

THE rich collection of the Museum of Natural History at Paris, which is daily augmented by the offerings of naturalists and travellers, contains a species of screech owl which is not larger than the *Chevechette* of Levaillant; it is not more than six inches in length. A yellow plumage covers the upper part of the body, with six white spots on the covert feathers of the wings; the face is varied with red and white, as well as all the under part of the body; the tail is short, and the wings cover it; the legs and the toes are furnished with a reddish down; the nails and the beak are blackish.

We are indebted for this new species, to Captain Baudin, who has, many times, braved

the dangers of a long navigation for the advancement of the sciences, and particularly of natural history. It is probable that this bird, found in the island of Trinity, is also spread over the continent of America.

THE CHOUCOUHOU.

TOWARDS the flowery banks of the Orange river, and in the country of the Great Namaquois, at the southern extremity of Africa, Levailant frequently saw a new species of screech owl, which seemed to differ a little from the family to which it belongs, and to approximate in proportion towards the diurnal birds of prey. Although it hunts only during the night, yet it flies very well in daylight, when forced so to do; but then the small birds become courageous, on account of the weakness of sight of this bird at that time, hunt and pursue it, while at the same time they are secure from injury; but scarcely have the shades of evening approached, when they display their ardour for the chace, and carry fear and

and consternation among the timid beings who only shew courage when free from danger. The choucouhou utters, in flying, a plaintive cry, and also produces a cracking of the beak, which is very singular, but which is also found in many others of the same species.

The size of this bird equals that of the small horned owl: the beak is almost hidden in the feathers which surround it. Its iris is of a topaz yellow colour; on the throat may be seen a kind of circle of white feathers. The general colour of the plumage is brown, varied with white, less deep on the under parts of the body, than on the upper; on the breast there is a stripe festooned at its edges; the belly and the legs are of a lighter and more gay colour; the wings reach over the greater part of the tail, which has deep brown stripes, and a reddish white underneath, being of a pure white and a light brown on the upper; it is long and slanting; the legs, which are very large, are covered as well as the toes, with silky feathers of a greyish colour; the talons and the beak are of a blackish brown; the female is a little larger than the male, and has less white in its plumage.

THE SCREECH OWL OF PORTO RICO.

IN the Museum of Natural History at Paris, is a new species of screech owl, which Mangé brought from America, from the island of Porto Rico, and which is also to be met with at Cayenne. Daudin has described it under the name of the *bare-footed screech owl* (*strix nudipes*) but which, not being a characteristic confined solely to this species, cannot be with exclusive propriety applied to it.

The size of this animal is about seven inches. A brownish yellow colour covers the back. The small covert feathers of the wings have small white spots upon them, and there is one which is particularly remarkable, towards the two sides of the neck. All the under part of the body is white, with brownish spots in the shape of a lyre placed longitudinally. The wings are as long as the tail. The legs are elongated, naked, and brown. The beak and the nails are blackish. The young ones have spots in the form of a lyre on the belly, but much less apparent than those of the adult bird; and hence the belly appears to be of a more uniform and more pure white colour.

THE MASKED SCREECH OWL.

NOTHING is more easy to recognize than this bird. The two orbs of feathers which surround the eyes are black. A beautiful white plumage is the prevailing colour, except the large quill feathers of the wings, and of the tail, which are brownish. The wings extend almost to the very extremity of the tail; the scapulary feathers, which are brown, have on them some black and white spots; the feet and the toes are covered with fine white feathers; the talons and the beak are blackish.

It appears that this pretty screech owl, which belonged to M. Dorcy, and which Levaillant has described, was killed during moulting time, and while very young, according to the observations of the latter; it is therefore very probable, that the adult individual has a different plumage. It is said to be a native of Cayenne, and it has great affinity with a species of screech owl of the same country, described by Latham; this last was twenty-one inches in length. Its head was small, covered with a white plumage, like cotton; its face

was

was chesnut colour, as were also the throat and the upper part of the body; a stripe of the same colour passes underneath the breast; the belly is of a reddish brown; the feet are covered with feathers, as well as the toes.

THE COLLARED SCREECH OWL.

WE are indebted to Levaillant for the figure and the description of a new species of screech owl, which is very rare, and which is found at Surinam. Its size is very large, and forms a medium between that of the small horned owl and the owlet. Nothing is more remarkable in this bird than two large white stripes, and its white throat; this plumage is deeply furrowed by a light brown colour, which surrounds the eyes, covers the top of the head, and encircles the breast with a large collar. All the upper part of the body is of the same colour; but the feathers are edged with white, with transversal stripes of the same colour; the belly, the rump, and the anus, are white; greyish stripes run across
the

the scapulary feathers, and the covert feathers of the wings; the under part of the tail is tinged with a brownish colour, and on which also are some deep brown stripes. Silky feathers, of a dazzling white colour, cover the toes; the talons are black; the beak is bluish, and its tip is yellow.

OF THE POULTRY KIND.

VARIOUS FOREIGN BIRDS

*Which have Affinities with the Bustard, the
Cock, the Peacock, &c.*

THE BUSTARD OF THE ISLAND OF LUCON.

SOME naturalists, and among others Mr. Latham, have confounded this bird, described by Sonnerat in his *Voyage to New Guinea*, p. 86, with the *Lohung*, or tufted *Bustard of Arabia*, described by Guenau de Montbeillard.* If, however, we compare the two descriptions, we shall find it impossible to coincide with this opinion. In fact, although this bird has, like the *Lohung*, a crest of long feathers on its head, pointed, horizontal, and parallel with the body, yet it differs in the colours of its plumage, and in those even of its tuft, the
upper

* The coadjutor of the illustrious Buffon.

upper feathers of which are all black, and the under ones grey, and crossed with black stripes.

The head, the neck, and the breast, are of a clear grey colour, and intersected by black and semicircular transversal stripes. The back, the wings, and the tail, are of a brown colour. The feathers which cover the wing when folded, or the bastard wing, are white, and terminated with grey. The belly is white, and the beak of an irregular black colour.

But if this bird does not appear to be the same as the *Cohung*, it is still less entitled to be considered as a wild peacock, under which denomination Sonnerat has introduced it. This is the name, however, which it bears in the Philippine islands, “perhaps,” says Sonnerat, “on account of some attitude, or some position, which is usual to it, like that which the peacock affects.” This bird is also found at the Cape of Good Hope, where, according to the same traveller, it is likewise called the *wild peacock*.

THE WHITE BUSTARD.

IT is with some diffidence, says Sonnini, and merely as an indication to future travelers, that I place here a bird, for the authority of whose designation I have only the work of the Chevalier Jauna.* But this author having given no proof of his knowledge in natural history, but having, on the contrary, shewn on more than one occasion, that the most common parts of this science were new to him, it is possible, and even probable, that he has taken, for a species of bustard, some birds of quite a different genus.

However that may be, the following is the passage from the Chevalier's book, in which he mentions this *white bustard*. "They take sometimes," says he, "in the island of Cyprus, bustards of a prodigious size, the plumage of which is extremely white, and the flesh very delicate." Naturalists, who may visit the same country, will decide as to the justice of the application of the name of *bustard*, to this extremely white bird.

* General History of Cyprus, Jerusalem, Armenia, and Egypt. By the Chevalier Jauna, 4to. Vol. I. p. 69.

THE BLUISH BUSTARD.

THIS is a new species found in the southern parts of Africa; we know nothing more of it than what is to be found in a slight indication given by Levaillant, in his first travels in the interior of Africa, vol. 2, p. 226. This able ornithologist, intending, no doubt, to be more full in his *Natural History of African Birds*, the continuation of which is expected with impatience and with curiosity, expresses himself simply, in the following manner, on this bustard, to which Sonnini added the epithet of bluish, to designate the most remarkable colour of its plumage.

“ In Caffraria, my dogs,” says Levaillant, “ put up a bustard, which I killed; it will form a new species to be described. Larger than the *small bustard* of Europe, the plumage of the neck in front, as well as the breast and the belly, are of a uniform greyish blue. All the upper part of the body is of a reddish colour, dotted and striped with an almost black colour; its note is very similar to that of the toad, but it is more powerful.”

THE PIOUSQUEN.

IF we consider, as a characteristical and indispensable mark of the bustard, the having only three toes on the feet, then the bird, which is called in Peru *piouquen*, cannot be considered as one, for it has four large toes, three in front and the fourth, which is a little more elevated, behind. But, if we examine this bird under a general point of view, it will be found to possess all the prevailing characters of the bustard, and we shall not be able to refuse it a place among the birds of this species.

Such, at least, is the opinion of Molina, who, in his natural history of Chili, has not hesitated to present the *piouquen* as a species of bustard, although it has the feet divided into four toes. It is true, indeed, that this author has, more than once, advanced things rather bold, in natural history: but until further observations shall produce further knowledge, the *piouquen* must hold its present station.

This bird is larger than the common bustard



Crowned Pigeon of Banda. Whiskered Jack Lark.



The Wild Cock and Hen.

Published by H. D. Symonds June 1. 1808.

tard of Europe: it is almost entirely white, with the exception of the head, the anterior part of the wings, which is grey, and the prime quill feathers of the same, which are black. The tail is composed of eighteen quill feathers, which are short, and of a white colour.

This species is found in the plains of Chili, and it is almost always seen in troops. Its nourishment consists entirely of herbs. They do not begin to propagate till they are two years old: the female lays six white eggs, which are larger than those of a goose. They are easily tamed, and many of the country people of Chili have rendered them domestic.

THE WILD COCK AND HEN.

By Sonnini.

ON my return from my first voyage to Guiana, in 1775, I published a short notice* on the wild cock and hen, which I had every reason to believe natural to South America, or at least to some particular regions of this part
of

* See the Journal de Physique, Aug. 1775.

of the new world. All naturalists agreed in making the cock a species of bird peculiar to the old world, and absolutely unknown in America: and, of all travellers who had preceded me, the Jesuit Acosta alone had asserted that hens existed in Peru before the arrival of the Spaniards, and that they called them, in the language of that country, *talpa*, and their eggs *ponto**. I agree with Acosta in opinion, and these are my reasons for it:

Travelling in the gloomy and solitary forests of Guiana, which yield only to the destroying hand of time, and when Aurora begins to chase away the shadows of night, I frequently heard a cry perfectly similar to the crowing of our cock, but less strong and less shrill. Being at a considerable distance from all habitations, I could not suppose that this cry, which my travelling companion heard also very distinctly, could be produced by domestic birds, and the Indians, by whom we were followed, told us it was the crowing of the wild cock.

In

* Acosta was a Spaniard, and the head of the Jesuits at Peru; he died at Salamanca in 1599. He published a natural and moral history of the Indies, in Spanish, and a treatise *de procuranda indorum Salute*. The testimony of such a man may appear of some weight.

In one of these journies I saw, myself, upon a mountain, a bird about the size of a pigeon, with a brown plumage, having on its head a red fleshy crest, short wings, and the tail like that of a hen, which it also resembled in its deportment and walk. I was enabled to examine it very leisurely; it did not seem to be at all ferocious. The negro who carried my gun, had stopped at some distance, and when he rejoined me the bird had taken refuge in the thickness of the forest, and we sought for it in vain.

This circumstance, joined to the crowing of the cocks heard in the woods, and the knowledge which the natives had of wild cocks at Guiana, left me in no doubt as to their existence in South America, and I communicated to the world all that I was enabled to learn of this circumstance, without any other motive than to intimate the existence of a new species in this class of birds.

Some time after the publication of the notification in the journal already mentioned, appeared Sonnerat's *Voyage to the Indies and China*. Sonnerat was commissary of marine, and, like myself at that time, correspondent of the king's cabinet. This traveller described very minutely two birds, male and female, of the

the cock species, found in the *Gates*, mountains of India, which separate Malabar from Coromandel: he mentioned them as the primitive stock from whence all the different races of our domestic hens had sprung. From that time naturalists rejected without much difficulty, my assertion on the subject of the wild hens of Guiana *as mere vague and uncertain facts, relative to the origin of the cock and hen.** Sonnerat himself occasioned this rash decision, from the manner in which he spoke of the hens of the *Gates*: as if to support the existence of certain wild birds in certain countries of India, it was necessary to destroy the testimonies of other writers, who asserted having seen similar ones in other countries. In fact, that we may feel how much such a mode of reasoning is inconclusive, I will here extract the very words of Sonnerat; they will throw a new light on the natural history (yet but imperfectly known) of the wild cock and hen.

“ Although the species of the domestic cock and hen,” says he, “ has been very anciently known, although the varieties are very numerous, although they are found in the regions

* Mauduyt, *Encycl. Method. partie Ornithologique. Article du coq.*

gions of the old world, and in many countries of the new, still we are absolutely ignorant what country gave birth to these birds originally, and still possesses them in a state of liberty. All that is to be found upon this subject in writers of natural history, and in travellers, is full of incertitude, does not present the necessary proofs and details, and is not sufficient to preclude further researches.

“ Dampier speaks of wild cocks, which he says he saw in the Island of *Pulo Condor*, at *Timor*, and at *St. Jago*. These cocks, according to his account, are about the size of our crows, and their notes similar to that of our dunghill cocks, only a little more sharp. But Dampier had not studied, accurately, the science of natural history: he has not given a detailed description of the bird which he saw: we cannot, from any thing which he has said, compare it with the domestic cock, and judge of the identity or the difference of the species.

“ Gemelli Careri says that he saw wild cocks at the Phillipines*; Merolla pretends to

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* Gemelli Careri is not the only one who has seen wild cocks at the Phillipines; a more modern traveller relates, that among other birds which abound in the woods of the island of Samar, the most eastern of the Phillipines, there

have seen them in the kingdom of Congo. Sonnini, who has travelled in Guiana, says he has heard in the forests of this vast country, a note similar to that of our cocks: he has seen too at a distance, the bird which uttered it: he found in it a resemblance with our cock, and he perceived besides, a fleshy crest on the head, and two fleshy appendages under the beak towards the base*: but he only saw these birds at a distance; he could not get into his possession any individual of the species; he has decided therefore upon the subject, merely in a conjectural manner: yet the observation becomes interesting, because the earliest authors, who have written upon America, agree in asserting that there were no cocks in the whole of this vast continent before its discovery. Coreal maintains, as a fact, that hens were

are a great quantity of wild hens, which differ from ours only in the more compact formation of their body, and their short feet; they are of a grey colour, spotted like the partridge. See *Voyages round the World, and towards the Two Poles, by land and by sea, by M. Pages, captain of the vessel, vol. 1. p. 160.*

* I said nothing about the fleshy appendages underneath the beak, because the bird was continually in motion, and did not leave me sufficient leisure to make such observation.

were carried to Brazil by the Spaniards, and he gives a strong proof in support of this assertion, viz. the Brazilians had, at first, an invincible disgust at the flesh of hens, and they regarded the eggs as a certain poison; nevertheless the greater part of the birds at Guiana, are the same as those at Brazil, and it is not probable that the birds, found in the former country, should not have spread, in the course of time, into the latter, and where, of course, they would have been known by the inhabitants. Hence, the cocks of which M. Sonnini speaks, do not belong to that species of bird; or if they do, they derive their origin from those domestic ones which have been carried thither, and have afterwards become wild*.

“ The observations of M. Sonnini, therefore cannot, any more than those of the preceding writers mentioned, determine our ideas as to the country whence the cock and hen drew their origin. Am I, in this respect,

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* It is impossible to suppose that the cocks and hens of Guiana, have originally proceeded from the domestic ones carried thither, and some of which had escaped. In fact, the former are heard only in the interior of the country, and at a great distance from all inhabited spots.

more fortunate than all other travellers? The birds, male and female, which I have brought from India, which I have found wild and free in the forests, are they in fact, the one a cock, the other a hen, and may they be considered as the primitive stock of our domestic cock and hen? It is by an exact description of these birds, and by a detailed comparison of them with those which I consider as similar, and the parent stem, that this double question must be solved. It must first be decided whether the birds, the description of which I am about to give, are, in fact, a cock and hen."

It cannot, in fact, be doubted, that these birds, brought by M. Sonnerat, are of the cock species; but, because wild cocks are certainly found between Malabar and Coromandel, are we therefore to infer that they exist no where else, and even in another continent? The ostrich, which flies still less than the cock, is it not found, with some modifications, in Chili, and the territories round the streights of Magellan? And is it not a very faulty mode of reasoning, to maintain that an animal cannot be found in one country because it is already found in another?

I have said, that I have every reason to believe

lieve in the existence of wild hens in the desert forests of Guiana. This bird, which I saw there myself, and which had all the attributes of the hen, the note of the cock, which I heard in the midst of these vast solitudes, the opinion so rife among the nations of their existence, all inclinè me to believe that the cock and hen are actually to be found there in a state of nature. During a second voyage which I made to Guiana, many persons confirmed to me, what I had already strong reasons for presuming. I will mention, in preference, a planter who had collected a vast deal of local knowledge, M. Salines, major of militia in the colony of Cayenne. He told me that in an excursion, which he made in the commencement of the year 1776, in the great wood of Guiana, he met, and had sufficient time to observe, a bird exactly similar to a hen in shape, and similar to that which I had myself seen, with the exception of a reddish colour, not far from the brown of the other, which tinged the plumage. Another testimony likewise, that of a traveller, who visited Guiana after me, may be adduced in support of these facts already certain. Captain Stedman observed, that the Indians, in the interior of Dutch Guiana, brought up a small species
of

of hen, with curled feathers, and which seemed native to the country. It appears then incontestible, that the wild cock and hen are equally to be found in both continents, with some varieties in the form and plumage, which are, however, a natural consequence of the difference of climate and situation. But the species which inhabits the ancient land of India, is more numerous than that of America, where it is, in a manner, lost in the immense forests, which cover entirely the humid and mountainous soil of Guiana. This last species is yet little known, nor are the cock and hen of the *Gates* more so, except by the two individuals which M. Sonnerat has mentioned in his voyages, and by the description he has given*. It will be proper to let this traveller relate, himself, his discovery, since he is the only one who has written upon this species of wild hen. After having compared the exterior characters of these birds with those which naturalists have assigned to the cock species, and verified that they are exactly the same, M. Sonnerat continues thus;

“ The cock, from the upper extremity of the beak to that of the tail, straightened and extended, is two feet four inches in length.

“ Its beak is four lines from the upper extremity

* See the accompanying plate.

tremitry of the angle which it forms in opening, and an inch from the same angle to the point of the under part.

“ The leg is five inches in length, measuring from the knee to the extremity of the middle talon ; this toe, including the nail, is two inches five lines in length ; the spur is one inch and four lines.

“ The size of the body, which I could not accurately determine, and which varies in different individuals, is about one third less than that of the common domestic cock.

“ The beak is conically formed, and curved at its upper extremity ; it is of a horn colour, and similar in every respect to the beak of the common cock.

“ The top part of the head is ornamented with a crest, which is depressed at its sides, flat, and notched on its upper edge ; it arises from the basis of the beak, and increases gradually as it extends backwards ; it adheres to the upper part of the cranium, and flows behind on the top of the occiput, over which it hangs ; its form is nearly that of a reversed scythe ; is of a lively red in the living animal.

“ On the two sides of the under part of the beak, are placed two membranous appendages

ages of the same colour as the crest, of a form almost triangular, and such as are seen in the same places in the common cock.

“ The sides and under part of the throat are bare of feathers, as well as the longitudinal line on the top of the head, between the crest and the eye. These naked parts are of a pale red or flesh colour in the living bird.

“ On each side of the head, under the eye, is a pearl-coloured spot, about the same size and form as the nail of the little toe of the human foot; it consists of short feathers, pressed close upon each other.

“ The legs are, as in the common cock, bare of feathers up to the knee, and covered with scales of a dull greyish colour: the nails and the spurs are blackish; the spur is of the form of an elongated cone, of a horny substance, terminated by a sharp point, and placed in such a manner, that making an angle with the leg, it bends towards the breast.

“ The feathers on the top of the head, and those of the neck, in front and on the sides, are long and straight; they increase in length according as they are placed lower. When the neck is bent, and in its natural state, they float upon the back and wings.

“ These

“ These feathers are flat; they are soft to the touch, and of an equal length on both sides.

“ The quill is large, and plainly perceptible through the whole length of the feathers, till within a few lines of its extremity, whence each feather seems to be striped, longitudinally, to its centre.

“ The feathers which cover the back, as far as the covert feathers of the tail, are long and straight: their greatest breadth is towards the middle of their length; they afterwards gradually diminish on both sides, and terminate in a round point. These feathers are crossed, longitudinally, by a white stripe; this stripe is accompanied on each side with a black one, edged with a very straight whitish border.

“ The feathers which cover the lower part of the neck in front, the top of the breast, the sides, and the thighs, are formed and coloured like the feathers of the back, with these two differences however, that the feathers of the thigh are proportionably longer, and less long, and those of the sides more large. It must also be remarked, that those near the sternum, on both sides, are of a red colour for the last third of their length, and that we find upon these feathers a lustre, and an appearance of a

small cartilage, which is also observable at the extremity of the feathers of the neck.

“ The feathers which cover the extremity of the belly, and those of the under part of the tail are a sort of down, similar to that which the common cock has in other parts; this down, in a wild cock, is mixed with white, black, and a dull grey.

“ The wings terminate at the origin of the tail. The large feathers are of a dull black colour, and present nothing particular in their conformation. Those which cover the bend of the wing, or the small covert feathers, are long, straight, and of the same colour as the feathers on the back, but smaller in all their dimensions.

“ The large covert feathers of the wings are short, stiff, and glossy at their extremities, which are also deeply tinged with a dark red colour. These feathers are so disposed, that partly covering each other, they leave no other portion visible, but that which is thus tinged; that part which is hidden is striped with white in its middle, and with black on the sides.

“ The colours and dispositions of the large and small covert feathers of the wings make them appear, towards their fold, as if they
were

were striped with black and white, and covered underneath at the part where they attach to the body, with a red shining colour.

“ The covert feathers of the tail are long and floating, of a deep violet colour, and reflecting the rays of light like polished steel.

“ Lastly, the tail is composed of fourteen feathers separated into two portions, inclining one towards the other, and forming an acute angle. The two middle feathers, longer than the others, form an arch, the convexity of which is turned from the side of the bird.

“ The wild hen is one third less than the cock: and this difference of size prevails proportionably in all the different species of the cock and hen.

“ The wild hen, as well as the male, has all the characteristics which strictly belong to this genus, one only excepted, viz. the crest and the membranous appendages under the beak. This difference, I must confess, appears a very great one, but it is sufficient to establish a real distinction? I believe no one will be inclined to think so, when it is remembered that there are the most astonishing varieties in this respect in all species, and even between individuals of the same species. In fact, there are races of cocks and hens, such

as the tufted for example, in which neither male nor female have any crest nor appendage under the beak; in others, such as the dunghill, for instance, the male has sometimes an enormously large crest and appendages, while the females have these parts diminutive and badly conformed. These discrepancies, however, establish no difference between the individuals, because we are certain and well convinced of their identity. Ought we then to consider the wild cock and hen as individuals of a different species, merely because of this variation? But every difficulty will be done away, if, as persons deserving of credit have informed me, and who live in the country, there are hens absolutely deprived of crests and appendages; this, however, I cannot affirm, because I have never had an opportunity of verifying it.

“ The top of the head, and the commencement of the neck behind, are covered with short, straight, and greyish feathers. The cheeks, and the under part of the throat, are whitish; and those parts naked in the cock, are covered in the hen with very small and numerous feathers.

“ The feathers of the neck behind, are
... brownish,

brownish, striped longitudinally in the middle with a kind of reddish white.

“ The feathers of the neck in front, those which cover the sternum and the belly, are brown, striped longitudinally with a dirty white in the middle.

“ The feathers which cover the sides are grey.

“ Those of the back are of a clear brown, tinged with grey; and the quill, in the length of these feathers, forms a straight longitudinal stripe, of a light red colour. The great and the small covert feathers of the wings present the same colours and the same stripe.

“ The large feathers of the wings are blackish on the internal side, brownish, and spotted with grey, on the external one.

“ The feathers of the tail are greyish.

“ Lastly, the legs and the toes are covered with grey scales. In the place where we find the spur in the male, there is a small protuberance in the female.

“ It is easy to remark, from the description which I have given, that the colours of the wild hen are those which are most usual and most common in the farm yard one.

“ I shall conclude, by observing, that the Indians rear two different races of the cock and hen;

hen; the one is purely domestic, and is, to these people, who eat no sort of animal flesh, simply an object of amusement, of commerce, or of curiosity; the other is a slave, and serves for cock fighting, a species of amusement of which these people are very fond.

“ The first race is similar to our domestic cock and hen, and is perpetuated distinctly.

“ The second race is that of the wild cock and hen, which the Indians keep and renew, by bringing individuals from the forests where they are born.”

THE SPOTTED GUINEA HEN.

THE guinea hen has been for some time spread over the different regions of the globe, by civilized nations who collect the varieties of every clime for their own peculiar enjoyment; but it has only been within these few years that any new species of this bird has been known. Natives of the burning climate of the torrid zone, the spotted guinea hen is to be found in the bosom of the humid groves of Madagascar,
or

or on the glowing shores of Guinea. They have the same manners as the common guinea hen, according to Pallas, who was the first that described them; but it appears that they are never found, except in a wild state: they are besides very rare. Their shape approaches that of the common guinea hen; the helmet is of a conical form, and the hood on the top of the head is red; the upper part of the neck is bare, and of a bluish colour; the feathers are waved transversally, and cover the under part of the neck; the ground colour of the body is black, with white spots, which are larger than those on our guinea hen; the feet are blackish, and the beak is somewhat yellow. The distinctive character of the spotted guinea hen is a longitudinal fold towards the throat, which is not to be found in the ordinary species. The fleshy glands under the throat are double in both species.

THE TUFTED GUINEA HEN.

WE are indebted to Pallas also for this new species of guinea hen. Its size is less than that of the common guinea hen; it is an intermediate one between that and the partridge. The distinctive characters of the tufted guinea hen are more decisive than in the former, for the present one has no fleshy glands under the throat, and it has a longitudinal fold on each side of the mandibles: the auditory canal is more open, and edged with slender feathers; more so than in any other species of guinea hen. Besides, the red and even bloody colour of the throat, and the black colour of the feathers covered with spots of a bluish white, not bigger than grains of millet, sufficiently distinguish it. These spots are disposed in a sort of regular quincunx. The down of the feathers is brown, and the prime quill feathers of the wings are of a blackish brown; the tail is round and, being pretty long, trails on the ground; on the forehead there is a pretty

black tuft, bending forward; the upper part of the neck and the head have some hairs thinly scattered, on a skin of a dark blue colour.

This animal inhabits various countries of Africa, and it is much less common than ordinary guinea hens. Of its manners little is yet known; but as its conformation is very analagous to that of other individuals of the same species, it is allowable to suppose that its habits are the same. As the native disposition of animals is nothing more than the result of their conformation, all analagous species ought to display a proportional analogy in their mode of life.

PHEASANT.

FOREIGN BIRDS

Which have an Affinity with the Pheasant.

THE ARGUS.

THERE is found, to the north of China, a species of pheasant, the wings and tail of which are covered with a vast number of round spots like eyes, whence it has been denominated the *Argus*. The two feathers of the middle of the tail are very long, and exceed, considerably, all the rest. This bird is of the size of a turkey-cock; it has upon the head a double tuft, which falls behind.

ADDITION TO THE ARTICLE OF THE ARGUS.

By Sonnini.

TO the short mention which Guenau de Montbeillard has given of the characters of
this

this bird, from the Philosophical Transactions, I shall now add such further details as have come to light since that period.

The argus has the forehead and the throat naked, and of a fine red colour; the circle round the eyes, and the whiskers at the base of the beak, blackish; the top part of the head and neck, blue; the fore part of the neck, the breast, the rump, and the upper covert feathers of the tail, yellow, and dotted with obscure spots: the back and the covert feathers of the wings, of a black colour, varied with a red bay; the nine exterior quill feathers of the wings are of a yellowish brown, spotted with black on the outside, and with white on the inside; the eleven other quill feathers are of an obscure brown, with round and oblong spots; the tail is composed of fourteen quill feathers, about three feet long, brown, and spotted with white; the covert feathers of the under part of the tail are black, variegated with brown; the feet are of a cinereous colour, armed with a spur; the beak yellowish, and the iris of the eyes yellowish.

This pheasant inhabits Chinese Tartary; it is also found in Sumatra, where, according to Marsden, it is called *Coo-ox*: this traveller

calls it the celebrated pheasant of Sumatra, and for beauty of plumage, he places it far above all other birds ; but though Marsden declares that there is no exaggeration in what he says, yet it is easy to see, from the description given above, that the argus, though of a plumage agreeably variegated, is less rich in colours than many other birds, and even than species of the same genus.

This bird is very fierce and difficult to keep alive for any length of time, after it has been taken in the woods ; it never survives its captivity more than a month. Its eyes are dazzled by a strong light, and it remains quiet and drooping while exposed to it ; but it delights in shade. It is a noisy bird like the peacock, but its flesh is very savoury, and has the same taste as that of the common pheasant.

FOREIGN BIRDS

Which seem to have an Affinity with the Pheasant and the Peacock.*

THE ELEGANT PEACOCK.

THE figure of this superb and beautiful bird is often seen on the painted papers of China, and in Chinese books; and it is probable also that it is the same species, the likeness of which they embroider upon apparel, and which is thus rendered of a very high price.

On the forehead of this bird there is a round fleshy gland; two other elongated ones hang under the throat, and they are all of a lively red. A tuft in the form of a fan, and of a blue colour, rises from the top of the head which is, itself, green as well as the upper part of the neck; on this last part there are long feathers
variegated

* Under this indecisive title are arranged certain foreign birds, which are too little known (but yet curious) to be assigned a more determinate rank.

variegated with green and blue. The colour of the body is a mixture of red, blue, and green; the fold of the wing is green, spotted with white; the wings are red, with the exception of the large quill feathers, which are blue; the long covert feathers of the upper part of the tail fall in the form of an arch on both sides; they are variegated with divers colours, and the quill feathers, which are themselves very long, are tinged with blue and red; the beak is red, and the feet are yellow, and without spurs.

This is all that is known of this beautifully feathered pheasant; it has hitherto been seen only in paintings, and perhaps it exists only in the imagination of Chinese painters.

THE FIRE-COLOURED PHEASANT.

THIS is one of those species which we are necessitated to call *new*, because it is not found described nor even indicated in the works of any naturalist. Sir George Staunton, secretary to the English Embassy to China, is the only traveller who has mentioned it. He saw
it

it at Batavia, in a menagerie, and the owner of it presented it to Lord Macartney, who sent it to England, and it was the opinion of Dr. Shaw, after an attentive examination, that this bird has never yet been described by any naturalist whatever.

The species which this pheasant appears the most to resemble, is the *momoul* (*phasianus impejanus*): the beak is long and crooked; but, after some attentive inspection, there were found a number of discrepancies between these two birds.

The plumage of the one now under consideration, is principally black, with a strong reflexion of dark blue. A dazzling lustre covered the lower part of the back, and appeared, at different times, sometimes of a light black, and sometimes of a lively red colour: this brilliant colour formed round the body of the bird a large zone, more obscure under the belly than on the back. The tail is in the form of a fan, and the two middle quill feathers are of a pale yellow.

Two fleshy glands, or appendages, which form almost an angle, and unite above the aperture of the beak, hang under the throat; long feathers, which hang behind, form, by this union, a sort of tuft on the head. The
feathers

feathers of the neck, of the back, and the throat, are round, and in the form of scales, like those of the Indian cock: the feet are thick, and armed with spurs extremely strong, long, and pointed. The colour of the legs, as well as that of the beak, is whitish.

Sir George Staunton does not say whether this bird, which has more affinity with the pheasant than with any other species, is natural to the island of Java, or whether the individual, which was given to him, had been brought from any other country of India.

THE AFRICAN PHEASANT.

THE skin of this bird is preserved in the British Museum, and little of its history is known, except that it was sent from Africa.

Its feathers are of a cinereous blue on the body, and white underneath, with black stems; the quill feathers of the tail are rounded at their ends, and entirely black, with the exception

exception of the two middle ones, which are black only at their extremity.

This pheasant, or this bird approaching to a pheasant, is eighteen inches in length, measuring from the tip of the beak to that of the tail. It has a thick and yellow beak, and a tuft of long feathers, which are brown, and edged with white.

THE HOCCHOES.

ALL the birds, observes Guenau de Montbeillard, which have usually been designated under this denomination, taken in a generic acceptation, are strangers to Europe, and belong to the hot climates of America; the various names which the different savage tribes have given them, each according to his own jargon, have, like the multiplied phrases of our nomenclators, contributed only to enlarge the list; and it shall be here attempted, as far as the dearth of accurate data will permit, to reduce these *nominal* to *real* species.

THE BLACK HOCCO; OR, THE HOCCO OF
FRENCH GUIANA*.

WITH a simple, but elegant appearance, with peaceable, but social manners, the *hocco* of *Guiana* offers also a healthy and savoury nourishment, an easy and abundant resource for the tables of the colonists of South America, and, above all, for the subsistence of travellers who penetrate into the immense forests of this part of the world. These good qualities render his history sufficiently interesting to make us eager to know more of this bird than has hitherto been communicated. Not but that ornithologists have spoken of it; but, in copying each other successively, they have, in fact, added nothing to the accounts given by Marcgrave, Laët, Hernandez, and Fernandez;

* In this article Sonnini throws some light upon the *Hocco* properly so called, under which head Guenau de Montbeillard, the coadjutor of the illustrious Buffon, in his history of the birds, ranges a great variety of species, which he considers as differing only in name. See the plate accompanying this volume. *Trans.*



The Black Hocco.



The Lori of the South Sea Islands.

Published by H. D. Symonds June 1. 1808.

dez; for, we may consider as nothing, the arbitrary denominations and phrases which have nothing scientific about them but their name, since they tend rather to impede the science of nature than to accelerate it.

Though this bird has often been compared to the Indian cock and the pheasant, though it even has some traits of similarity with both of them, yet it differs from both in some very remarkable peculiarities. It must, however be confessed, that to the eye of a careless observer it would appear more like an Indian cock than a pheasant; it is of the same size, has the same walk; it resembles it also by its native stupidity, and by its great inclination to a domestic state. Hence, I was surprised that Aublet, who, like myself, has had opportunities of examining this bird in its native clime, should have considered it as a pheasant, when, on the contrary, it approaches so much more nearly to the Indian cock.

The hocco differs from the pheasant by its size, by the fleshy membrane which surrounds the base of the beak, by its singular tuft, and by other particularities. It differs also from the turkey-cock, because it has no fleshy gland hanging from the top of the beak, nor the bunch of bristly feathers at the breast, nor

the skin at the throat, nor the power of representing a wheel by unfolding the large feathers of its tail. It forms, therefore, a very distinct genus, the principal characters of which are, having the beak of the cock, with a naked membrane, which covers the top of the beak to its base, and which naturalists have called *cera*: the temples, that is, the space comprised between the eyes and the beak, bare of feathers; the tail long, and composed of fourteen sloping quill feathers; lastly, the feet, like those of the cock species, only they are destitute of the spur. But its most remarkable attribute is a tuft of two or three inches in height, which extends from the insertion of the beak to the back part of the head, and which the bird can raise and depress at its pleasure, according as it happens to be variously affected. This beautiful tuft is composed of sloping feathers, a little inclined behind, and the points bent a little forward.

This genus of birds is peculiar to the hot climates of America; if any differences be observable in the individuals which compose the tribe, they are variations, probably, which are to be attributed to situations rather than to distinct species. These varieties, and the different languages of the people who live in these

these regions have occasioned multiplied denominations, which it would be at once tedious and useless to recapitulate. Linnæus has constituted a new genus of birds in the hocco, under the appellation of *crax*; and he has designated the species which I am describing, under the title of the fury *Alecto*, daughter of Acheron and Night. It is not very easy to comprehend the reason of this denomination.

I shall speak only of the *black hocco*, the only variety or species which I saw on the continent of French Guiana, and the only one, indeed, which appears to exist there. It is the fourth black pheasant of Barrere, the twelfth of Brisson, and, as I have already said, the *crax alecton* of Linnæus. It approaches to the size of a turkey-cock; it has the head, the tuft, and the neck, of a beautiful velvet black colour; the belly, the inferior covert feathers of the tail, and a part of the feathers which cover the legs, are of a dull white, the rest of the plumage of a deep black; the membrane of the beak, the temples, and the circle round the eyes of a beautiful yellow; the end of the beak and the eyes black; the feet of a bluish cinereous colour; and lastly, the claws of a white colour, tinged with yellow. The sides of the head are covered with short feathers,
which

which are soft to the touch, and there is also a semi-circle observable, which is white and bare; these are the ears. The wings when they are folded, that is, when they are in a state of repose, do not project further than the origin of the tail.

Dimensions. The total length, taken from the extremity of the beak to the end of the tail, two feet ten inches and a half; the beak is two inches long, nearly an inch broad at its base, and about thirteen lines in thickness; the apertures of the nostrils are four lines in length, and nearly three in breadth. The length of the foot is four inches; the middle toe, including the nail, is three inches three lines: the hind toe one inch eight lines; the wings fourteen inches, and the tail nearly a foot; it projects six inches and a half beyond the wings when they are folded.

Plates, in natural history, are destined to shew to the eye what description but imperfectly communicates to the mind. But the reader would be deceived, who should expect to find a true representation of the *black hocco* in a collection of coloured engravings published at Florence, with more splendor than precision, under the title of *Storia degli uccelli*. This bird is there hardly recognizable;
it

it is painted without a tail, with a tuft which is not its own, and other gross errors. The notes which accompany this plate, are not less defective; the *hocco* is confounded with the *pauxi* and the *hoatzin*. The coloured plate, No. 4, of the *Natural History of Birds*, represents exactly the black hocco, under the denomination of the male hocco; but the plate, No. 5. of the same collection, indicates very badly the figure of the female of this species, being that of the white spotted hocco, which constitutes quite a different race.

The species of the black hocco is constant, and although it is very numerous in French Guiana, it is the same in all the individuals; I have seen a great quantity of them, and I never met with but one on the banks of the river Sinamari, which differed from the others, and this difference was, that it had on each feather of the tuft two small white transversal stripes; the iris of the eyes was blue; some grey feathers were on the black part of the legs; and lastly, the beak was bluish, with a little white at its extremity.

Many naturalists have mistaken the white-spotted hocco for the female of the black hocco. But the former constitutes a separate variety, which lives in the environs of the Ama-

zon

zon river, and which is never seen, or at least very rarely, in French Guiana. The true female of the black hocco is but a little degree smaller than the male; the tail is not so long, the tuft is not so beautiful, it is less elevated, and it is of a less lustrous black; the beak is grey at its end, and the feathers of the stomach terminated by a straight, grey line; in every other respect it is like the male.

The hoccoes of Guiana live in numerous troops in the vast forests, with which this country is almost entirely covered; but they have nothing wild except their residence. Mildness and tranquillity form their character; they do not seem to fear, nor even to know danger; little anxious, apparently, about the preservation of their own existence, they do not fly from those circumstances that occasion its loss. I have often found myself in the midst of considerable flocks of these peaceable birds, which my presence did not seem to intimidate. This kind of indifference renders it easy to destroy them. Many of them may be killed, even with a musquet, without their making any other efforts to escape than simply flying from tree to tree.

Such are these birds in the vast solitudes where, having nothing to fear, they are naturally

rally without distrust. On the contrary, the small number of those who frequent the environs of inhabited places, become fierce and gloomy; every thing alarms them; the least noise puts them to flight. This continual agitation, and the frequent necessity of a prompt flight, do not suffer them to form large associations: they are seldom seen more than two or three together. So much does the vicinity of man influence the character of animals which surround him! I mean civilized man; for the unclothed savage traverses without noise through the thickest woods. His step is so light that he scarcely bends the grass over which he passes; he surprises and pierces with his arrows the animals which have had no occasion for alarm, and thus, by appearing innoxious, they in fact do not learn to fear him; but the European, spreading terror to a distance by the explosion of his arms, the cry of his dogs, and all apparatus of the chase, drives away the game from the spots which they once inhabited, and renders them difficult of approach. This difference of character shews how little we ought to appreciate the discrepancies of habit in animals: though Guenau de Montbeillard has thought such a dissimilarity sufficient to exclude the *hocco* from

the genus of pheasants. If, however, numerous and easily comprehended differences do not separate them, contrariety of manners, which is a necessary result of contrariety of situation, will not be deemed an adequate ground for not ranging them under the same class.

The Mexicans called the *hocco tepetotol*, which signifies *the bird of the mountains*. In fact, it usually keeps upon the lofty elevations of this country, but always in the midst of thick woods; it perches upon the highest trees; and it sometimes seeks upon the ground for those fruits which form its subsistence. The fruit upon which it feeds from preference, according to *Aublet*, is that of the *thoa urens*, which it swallows whole. Its walk is slow and solemn; it flies but little, and its flight is heavy and noisy. When it is affected by joy or fear, when it is pursued, or when it takes to flight, it utters a piercing cry, which may be pretty accurately expressed by the two syllables *po-hie*, and which forms the name which the Spaniards in some parts have given to it.

When it walks, and is free from any kind of apprehension, it utters also a sort of murmur or buzzing, which no naturalist has taken notice of. It is not a cry, but a concentrated sound,

sound, and similar to that of a violoncello. This dull, heavy noise does not issue from the beak; it is formed in the capacity of the abdomen, and does not issue by any aperture, but only by the pores of the skin; so that the hocco, as well as the *agami*, is a bird which may be considered as a ventriloquist.

These different sounds which the hocco utters, depend doubtless upon the conformation of the trachea, which differs in some respects from that of other birds. Composed of a very firm substance, with solid rings in proportion, this artery proceeds in a straight direction as far as the lower part of the neck; there it loses its cylindrical form, and becomes larger and flattened. It then makes a circumvolution round itself, of about an inch, and enters again before and behind, above the crest of the sternum; its two bronchias enter into the wings. These observations were made upon two male hoccas, and there is every probability that this particular conformation does not exist in the females.

Like almost all the birds which inhabit the same climates, the hoccas have no fixed time for the laying of their eggs. It is, however, more frequently during the rainy season, which lasts for seven or eight months at Guiana,

than during the dry, that they occupy themselves in the propagation of their species. They generally brood only once a year. They employ but little industry in the formation of their nests; they place, upon sufficiently strong branches, some dry twigs, among which they interweave, very inartificially, slips of grass; they cover the bottom with leaves, and the female deposits there two white eggs, nearly of the same size and of the same form as those of the Indian hen, but the shell of which is thicker. The number of these eggs varies according to the age of the female, but they are never less than two nor more than six.

Though I suspect the accounts of Fernandez, and, after him, of Nieremberg, respecting the extraordinary familiarity of certain hocos, to be exaggerated, yet, it is certain, that no bird can have a greater aptitude to a state of domesticity. They are very common in the streets of the town of Cayenne; nothing frightens them, they enter into all the houses, and leap on the tables for something to eat. Though they run at liberty through the town, and even beyond it, yet they know how to distinguish the houses in which they are kept. From their love of elevated situations, they perch, to pass the night, on the highest
roof

roof in their vicinity. They are not delicate in their choice of food ; every thing agrees with them ; they eat indifferently maize, rice, bread, cassavi, bananas, potatoes, and all sorts of fruits. Flocks of them may be easily kept. The colonists of Guiana, however, had not made this attempt at the period of my voyages to this country. It would be, however, a complete union of the useful and agreeable ; for, independently of the beauty of these birds, their flesh is white, and of an excellent flavour, and the care which is shewn them in a domestic state, renders it more succulent. The tuft with which their head is furnished, would provide a pretty accession to the dress of the female sex, who might form from it embellishments at once simple and elegant. I have seen the inhabitants of Cayenne seeking for these tufts ; they buy them of the hunters, who are careful, immediately they kill the bird, to take off this natural ornament.

THE SASA.

IT is thus that this bird ought to be spelled and pronounced, and not *zaza*, as Mauduyt and others have labelled it in their collections. It is found in French Guiana, and probably in other southern countries of America; yet no book, which treats of the natural history of this part of the new world, contains any thing respecting it.

Of all European birds there is none with which the *sasa* has a greater affinity than with the pheasant; in size, manner, form of the body, and that of the beak and feet, it is similar. Though the colours of its plumage are in general a little sombre, yet when viewed altogether they have an agreeable appearance. The feathers on the top and sides of the neck, as well as those on the back are brown, marked with white in the middle. The upper covert feathers of the wings are brown, edged with white, and their quills are brown, gradually changing to red as they recede farther from

from the body. Shades of green and light red diversify the dark ground of the back and wings. The quill feathers of the tail are long, of a greenish brown, and terminated by a dirty white. White, shaded with red, is the colour of all the under parts of the body, except that the red is unmixed upon the under covert feathers of the wings, upon the belly, and on the legs; the feet and toes are red, and the claws black. But what distinguishes it most particularly is a long tuft, formed of straight feathers, red from the point of their insertion to about one half of their length, the rest black, and the largest of which hang down behind to the middle of the neck. It has not the power of erecting this beautiful crest like some birds; when it is moved in any manner, it has simply the power of raising the feathers, or rather stiffening them, so that they remain horizontal; and under the same circumstances the tail enlarges itself, and becomes rounded like a fan.

This species of bird is not very numerous, at least in those parts of Guiana which Sonnini traversed. He sometimes met them in pairs, and sometimes in troops of six or eight at most. They are never to be found in the large woods, nor in elevated places; they frequent,

frequent, in preference, the marshy savannas, and this preference is founded upon their wants, for they live upon the leaves and berries of a large species of tree called *moucou-moucou* by the inhabitants, and which grows in none but watery places. Wherever there are many of these aquatic plants, there is almost certain to be a number of *sasas*, being great or small, in proportion to the quantity of subsistence. This species of food, which they can take only when they are perched (for the root of the *moucous-moucous* is in the water) gives them a habit of this situation: and hence they are rarely seen upon the ground. During a great part of the day they remain tranquil on some low and shady branch by the side of the water; their flight is short and heavy; they are not fierce, but, on the contrary, their manners appear to be mild, peaceable, and social; when they are in troops they keep all on the same branch, ranged in a line close against each other, and without any disagreement. They pronounce their own name *sasā*, very distinctly, and with a strong voice, but which is rough and disagreeable. Nor is this the only disagreeable feature about them; they exhale, likewise, so strong an odour of *castoreum*, that their flesh is not eatable; yet
it



The Parraka.



The Parraka dissected.

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it is not altogether useless. The fishermen of this country cut it in pieces, and make use of it as an excellent bait for catching a large species of fish, which they call *torche*, and which is a kind of mullet.

THE PARRAKA*.

THIS bird, which should be written *parra-koua*, and not *parraka*, as Barrère has done, pronounces its own name distinctly. It has a considerable affinity with the marail, only it is somewhat less; otherwise it has the same appearance, and the same habits; the conformation of the beak is the same, as well as that of the feet and toes, which are also reddish: under the throat may be seen the same naked red place; it is divided lengthways by a straight band of hard, black, and thick hairs: the feathers of the head, which are longer than usual, form a kind of crest, which the bird bristles up when it is affected in any manner; this

VOL. VI. Z crest

* See the plate accompanying this volume.

crest is of a brown colour approaching to red ; the ground of the plumage is a mixture of grey, red, and green ; the under part of the body is grey ; the quill feathers of the wings, and of the middle of the tail, have tinges of a shining green colour ; the side feathers of the tail are red, with the exception of those which touch on each side, the two middle quill feathers, they being divided in two by a shining green and red colour. The beak is black until towards its extremity, when it becomes of a horn colour, of which colour also are the claws.

The apertures of the nostrils, which are large and oval, are placed about the middle of the beak, the feathers on the forehead project towards the beak, and almost reach the nostrils. The eyes are surrounded with a naked and bluish skin.

Dimensions. Total length, one foot nine inches, three lines ; of the beak, fourteen lines ; its upper chap, a little swelled at the basis, and about six lines in thickness ; straight above the nostrils, then crooked and two lines thick at its extremity, turning inwards, and projecting over the under chap two lines. The breadth of the apertures of the nostrils is two lines, and their length three : they are about nine lines from the anterior angle

angle of the eye. Length of the wings, seven inches two lines: length of the tail, eight inches; it projects beyond the wings when folded, six inches and a half. Length of the tarsus, two inches; of the middle toe, two inches; of the hinder one fourteen lines.

The *hoitlallotl* of Fernandez, without being of the same species as the parrakoua, for their colours are different, is however, only a variety perhaps. But it seems pretty certain that the parrakoua is the same bird as the wild hen, the *Katraca* of P. Feuillée; some differences, to be sure, may be observed between them in the colour of the plumage; but, besides that these differences are not considerable, it is well known that, particularly in hot countries, they are the ordinary consequences of diversity of climate, and even of situation. It must be confessed, however, that the form of the beak, which in the *katraca*, is almost like that of our wood-pigeon, only being somewhat shorter and more solid, is a very considerable difficulty, and which cannot be removed by recourse to any supposition of the influence of climate. But otherwise, the resemblances are so marked in these two birds, that we cannot hesitate to consider them as one; they have both the same shape, the same manner (viz. that of

pheasants) the same walk, the same customs, and the same cry. But there is one thing which puts, beyond all possibility of doubt, the affinity of these two birds, viz. the singular conformation of the tracheal artery of the male, equally observed in the katraca by P. Feuillée, and in the parrakoua by more modern observers.

This conformation of the tracheal artery of the parrakoua was well known by the hunters and creoles of the colony of Cayenne: I myself mentioned it both to Buffon and M. Daubenton; and this discovery (if such it may be called, for its priority is due to P. Feuillée) was to have been published in a work which I was writing in 1776, but the prosecution of other travels called me away from it, and prevented its taking place. Bajou*, a year afterwards, took to himself the honour of the observation, as if it had never before been mentioned; but the academy of sciences, to whom he addressed the account of this pretended discovery, observed to him, that he had been already anticipated by P. Feuillée.

The tracheal artery, (*see the plates accompanying this volume*) does not accompany the
œsophagus

* Remarks upon Cayenne, vol. 1, p. 374.

œsophagus as in other birds, to enter into the cavity of the breast: this channel of respiration continues its course outside of the breast, fastened by small membranous ligatures to the right side of the sternum, on a level with the top of this bone. When arrived at the extremity of the sternum, the tracheal artery bends, forms a cross, and returns near the top of the same bone, like a trumpet: and in this return it is attached to the other tube by small membranous fibres as far as the upper part of the sternum; passing lastly, above the right clavicle, it enters the cavity of the breast to inflate the lungs, the same as usually takes place in other birds. (See the plate, in which there is a dissected parrakoua engraved, in order that the reader may trace the involutions of the tracheal artery.)

The males alone, in this species, have this peculiarity of conformation; it is, in them, a general rule: the *marail* appears, however, to be an exception, if Bajou be not deceived in asserting that the female of this bird has the tracheal artery formed the same as the male.

The parrakoua, at Guiana, is found only in the forests at a small distance from the coasts, and never in the interior of the country. It
lives

lives on wild fruits and grains; it runs quickly upon the ground; its flight is short and heavy; and its voice is powerful and disagreeable.

The parrakoua frequents, in general, the most open spots, the least impervious woods, and even the savannahs.

THE PARTRIDGE.

FOREIGN BIRDS

Which have an Affinity with Partridges and Quails.

PARTRIDGE OF THE CAPE OF GOOD HOPE.

THIS is a large species of partridge, somewhat similar to the pearled partridge of China, but its size is more considerable. It is nineteen inches in length; and its chief residence is among the arid and sandy spots of the Cape of Good Hope, in which it seems to delight. Though it does not approach very near to any habitations, yet it does not fly from the sight of man, and, doubtless, it would be very easy to domesticate it in the same manner as hens.

All the body of this bird is of a grey cinereous colour, with undulated shades of a darker colour, especially on the back. The feet.

feet are red, and one of them has a short spur. The beak is of a horn colour, with a slight red tinge of the colour of blood. The claws are black.

THE PARTRIDGE OF PONDICHERRY.

ON the coast of Coromandel, in the odoriferous plains of maritime Asia, Sonnerat found a new species of partridge, which is about the size of our common partridge. A reddish colour covers the occiput: yellow feathers surround the root of the beak, as well as the throat, and upon this last there are some black spots observable. The top part of the neck is of a greyish undulated colour, with black stripes. White lines, in a zigzag form, cross the red ground which covers the back. The white feathers of the belly are embroidered with black, with yellow spots on the sides. The two middle quill feathers of the tail are red, with numerous brown angular lines, and four stripes of a yellowish white which cross them. The rump, which is grey,
has

has some whitish stripes edged with black. The beak is blackish. The iris and the feet are red. A strong spur distinguishes the male.

THE PARTRIDGE OF GINGI.

THIS species of partridge, which is smaller than our grey partridge of Europe, inhabits the countries on the coast of Coromandel, near Gingi, where Sonnerat met with it. Its race, no doubt, extends farther into Southern Asia. We have no details as to its manners; and though we ought to praise the zeal of those travellers who combine a knowledge of natural history, yet we think they should never confine themselves simply to a bare description of an animal, unless they are absolutely unable to furnish any details on its mode of life. This part is, in fact, one of the most agreeable in natural history, and we should strive rather to render the science interesting, than to reduce it to a bare and sterile nomenclature. What we admire in animals is not

their inanimate skeleton, however ornamented it may be by the most beautiful colours, but the life which actuates them, and their habits and manners which seem at least to have some affinity with ourselves, since they owe their origin to the same vital sensibility.

The partridge of Gingi is distinguished by a black beak ; the rump and tail of a brownish grey colour, mixed with black ; it has also a kind of white eyebrows. Each quill feather of the tail is marked with a black spot. The belly is white, and each of the feathers that covers it has a double longitudinal reddish stripe. The feet are yellowish. The female, which is smaller than the male, has some black stripes on the quill feathers of the tail. Its belly is reddish, and its feet are of a dirty grey colour.

THE RED PARTRIDGE OF MADAGASCAR.

THIS bird, which approaches considerably in size to the grey partridge, is very analogous to the partridge of Pondicherry, and we are indebted

indebted for the knowledge of it to the same traveller, Sonnerat. All the plumage of its body is of the colour of onion peel, or of a dirty, brown red. This colour becomes more dull and deeper towards the back part of the head and neck, and on the under parts of the body it is paler. The iris and the feet are of a brilliant red, the same as in the red partridge. The beak is yellow; and the male has two spurs on each foot.

THE QUAIL OF CAYENNE.

SONNINI found, in the different countries of French Guiana, a bird which belongs to the family of quails. It is not migratory, and it lives all the year in the same country. In fact, the rainy season, which in those regions supply the place of our winter, is not so rigorous as European winters, nor does it check all the productions of the earth. Animals, therefore, who inhabit these countries, may remain constantly in them, without any fear, as in the

northern climates, of perishing for want of food.

The flight of the Cayenne quail has, according to M. De la Borde, a considerable similarity with that of the ordinary quail. It begins to lay in November or December, and it is even probable that they have more than one brood in a year, for M. De la Borde saw young ones at all seasons.

The quails of Cayenne fly in companies from seven or eight to fifteen or sixteen in number; the old ones are the most alert, and rise the first.

These birds inhabit, from preference, places near the skirts of woods. They are not so wild but that many of them may be met with in the vicinity of dwellings. The young ones are not easily put up; they hide themselves very securely among the large plants, &c. where they inhabit.

The Cayenne quail is not very numerous; it feeds upon various sorts of grain, and upon insects. When they rise they do not utter any cry, and they file off to the right one after the other; their flight is not very high, being about five or six feet. The young quails which are scattered about, are recalled by a slight whistling, something like our partridges.

Sonnini

Sonnini says that he has seen these birds brought up in a cage with grains; but that they always preserved a certain degree of ferocity and wildness of character, and were uncommonly agitated when any one approached them.

This quail, which has much affinity with the Madagascar one in its colours, though it is smaller, has the beak nine lines in length, six in breadth, and four in thickness. The upper chap is convex, and covers the under one; it has a tuft six lines high on its head, the feathers of which are of a reddish colour, as well as those on the nape of the neck; the throat is fawn colour; the sides of the neck are grey and black; the back, the under part of the neck, as well as the covert feathers of the wings, are covered with grey feathers, with a red tinge, and undulated with black stripes more or less fine. Towards the rump the feathers are red and black; the wings are four inches in length, and their quill feathers are of a greyish tint, dashed with red; the tail is brown on the top, undulated with a reddish colour, and underneath it is of a light grey, slightly undulated; it extends beyond the wings when folded, about an inch; the feet are yellowish, and the claws black.

TRE LARGE QUAIL OF MADAGASCAR.

THIS species, which is twice as large as that of the European quail, is easily cognisable, by its reddish coloured feet, with white bands: and by its throat, its breast, and its belly, being black, spotted with white. The top part of the body is of a yellowish brown colour, with white stripes upon the back and the nape of the neck, which last are also crossed with black stripes; a white line, which commences at each corner of the beak, passes over the eyes. The prime quill feathers of the wings are of an earthy brown colour; the others are black, with white stripes: the tail, which is black, is furrowed with yellowish lines; the feet are reddish, and the beak is black.

M. Sonnerat was the person who first discovered and first described this bird; but he has added nothing which can give us any knowledge of its manners.

THE BROWN QUAIL OF MADAGASCAR.

THE same traveller has introduced us to another species of quail, which is by no means so large as the common species.

A plumage generally of a dirty grey colour, and dashed here and there with blackish stripes, distinguishes this animal. Its head and the nape of its neck are mixed with black and red; the throat is of a dirty greyish colour; all the feathers of the under part of the body have, each of them, two black stripes parallel with their extremities; the wings are brown; the iris is yellow, the beak and the feet are black.

THE SMALL QUAIL OF MANILLA.

IN the island of Lucon there is a small species of quail which is not much bigger than a sparrow;

a sparrow; its length is four inches. The upper part of the body is black, as well as its feet and beak. Its throat is white, its breast grey, spotted with black. The belly is yellowish, with black stripes. Upon the wings may be remarked some grey stripes, and the sides are coloured with a lively red. This quail has four toes on each foot, and differs from the other species which is to be found upon the same island, and which the reader will find an account of in the following article.

THE THREE-TOED QUAIL OF THE ISLAND
OF LUCON.

WHATEVER difference may appear to be established by the want of a toe in birds, which usually have four on each foot, yet it is not without a precedent. Not only this species, but the quail of Madagascar, that of Gibraltar and of Andalusia, are of this number. The external form, the manners, the motions of the bird, all tend to approximate it

it to the quail species ; hence nature seems to sport with method, by the immense variety of her productions. She is more vast than the circle in which we would vainly endeavour to limit her.

This quail is one third smaller than ours. Its head, the nape of its neck, and its throat, are of a black colour, intermingled with white; the belly is yellow ; the feet and the beak are of a clear grey colour. The back, and the quill feathers of the wings, are grey, with a yellowish edge.

THE KAKELIK, AND THE QUAIL OF PERSIA.

THOUGH we do not possess very distinct information respecting these two species of quails, yet we will mention them, in order that naturalists may be stimulated to acquire more authentic matter concerning them.

The kakelik, thus named by Onomatopée, on account of its cry, which is analogous to its

name, lives in troops in the vast sandy deserts of Bucharìa towards the regions of the Songar Tartars, and those of Chiwa. Its shape is very similar to that of the large-cropped pigeon. The top of the body is white, undulated with shades of a cinereous colour. The breast is of a deeper cinereous hue. The beak, the eyelids, and the feet, are of a lively red, approaching to orange. This bird was discovered by Falk.

The other species, which is found in the environs of Astrabat, in Northern Persia, is also of a cinereous colour; the beak at its basis, the circle of the eyelid, and the temples, which are bare, are of a deep yellow colour, as well as the feet. For this description we are indebted to S. G. Gmelin.

THE GIBRALTAR QUAIL.

TWO species of quails have been described, which are found on the coast of Spain, opposite to Barbary, and both of which have only three toes on each foot. The first, which is
towards

towards Gibraltar, is about six inches and a half in length; its wings and its tail are black; the back is brown, striped with black; the covert feathers of the wings are iron colour, edged with white, with a black spot in the middle, enclosed within a white circle. The throat is black, with white stripes; the feathers of the breast are white towards their edges, iron colour in the middle, and surrounded with black. The tail is fringed with white, and has, besides, some black stripes.

The other quail, which traverses the rugged country of Andalusia, is red, with black spots. Underneath the body there prevails a whitish red. The breast and the throat are tinged with a light yellow colour; the quill feathers of the wings are black. The feet and the beak are of a pretty red colour.

OF THE PIE KIND.

THE CROSS-BEAKED RAVEN.

ONLY one individual of this singular species has hitherto been found ; it was killed at Porto Rico, by Maugé, a traveller and naturalist, and its skin is preserved in the cabinet of natural history at Paris.

This bird does not differ in its form or plumage from the common raven ; but its beak has a very singular conformation ; its two parts, or chaps, are crossed one upon the other. It is impossible to decide whether this bird therefore, hitherto *alone* in the collections of natural history, be a distinct species ; or whether the peculiar shape of its beak have arisen from some accident. The latter, indeed, may be argued with some degree of plausibility ; but besides that we have a similar conformation in
a whole

a whole race of birds, who shall limit the powers of nature? It is a narrow and unworthy philosophy that would refer to accident what may be the result of design.

THE RAVEN OF THE SOUTHERN REGIONS.

(*Corvus Australis.*)

THIS bird is remarkable on account of its beak, which is thicker at its basis, and more flattened on the sides than the beak of the common raven; and also for the feathers of the throat, which are soft and thinly scattered.

The colour of the plumage is not a deep black, but rather what is expressed by the word *blackish*; and the quill feathers of the wings approach towards a brown. These discrepancies in the form and colour are sufficient to entitle the raven of New Holland and the Friendly Islands, to be considered as a distinct

distinct species. Its length is about eighteen inches, and that of the quill feathers of the tail about seven inches.

THE CORBIVAU.

BY this epithet, *corbivau*, Levaillant has designated an African bird, whose external characters, and whose natural disposition approximate it equally to the raven and the vulture, between which nature seems to have placed it as the connecting link which unites these two ignoble and uncleanly species. It appears, however, to approach nearest to the raven, the form of whose body it has, as well as the feet, toes, and feathers on the forehead inclining forwards and covering the nostrils. Its points of similarity with the vultures, are its beak, compressed on the sides, convex at top, very much curved and rounded; the length of the wings, which project beyond the tail three inches; and lastly, the feathers of the tail being sloped. A very singular characteristic,

racteristic, and which Levaillant assures us belongs only to a small number of birds, is the conformation of the feathers of the throat, which are forked.

The corbivau approaches also to the raven, by the colour of its plumage; it is entirely covered with a shining black, somewhat less deep on the throat, and interrupted on the back of the head by a white spot, whence parts on both sides, a line of the same colour, scarcely however perceptible, which encircles the breast. The feet and the beak are black; the end of the beak is white, and the iris of the eyes of a blackish brown colour.

The female is smaller than the male, and its colours are less decided. She lays, in the month of October, four greenish eggs, spotted with brown; these are deposited in a very ample and deep nest placed upon large bushes made of branches, and lined with soft materials.

This bird, which the Dutch of the Cape of Good Hope call *ring-hals-kraey*, i. e. the collar'd raven, is also like the raven in its croakings, and its fondness for cadaverous flesh; but it has also an appetite for living prey. It attacks and kills lambs and young gazelles, after
having

having began by tearing out the eyes and the tongue.* They may be seen perched in great numbers upon the backs of buffaloes, oxen, horses, rhinoceri, and elephants, whom it relieves from the larvæ of insects which are lodged upon them.

Levaillant met with the Corbivau in the whole course of his travels through Southern Africa; yet it is more rare in the environs of Cape Town, and more common among the Great Namaquois, and in Negroland.

Bruce mentions, in his travels in Nubia and Abyssinia, a very large species of raven, the plumage of which is mixed with a black and brown colour, the tip of the beak white, and the back part of the head crowned with white feathers in the form of a calix. This African raven does not, however, seem to be much different from the corbivau, and perhaps it may be of the same species.

* This singular fact is attested by Levaillant, as well as all the other particulars of the corbivau.

THE CROW WITH WHITE DOWN.

DAMPIER, in his voyages, says that the crows of New Guinea differ from ours in nothing but the plumage, of which all the external part is black, and all the interior white, But this species does not appear to be peculiar to the southern countries of Africa, for Maugé, a very ingenious naturalist, found them in the Antilles, at Porto Rico, and deposited an individual in the cabinet of natural history at Paris, where Daudin saw and described it.

This bird has a great affinity with the Jamaica crow, described by Sir Hans Sloane, in its shape, and even in its colour, if only the exterior of its plumage be considered, which is of a beautiful deep black; but if the feathers be raised, there might be seen a white down, with which they are furnished at their basis. From this peculiarity it may be presumed that the present bird and the Jamaica crow are the same species, more accurately examined by naturalists than travellers, which

last are contented with simply relating what strikes their eyes, without carrying their researches any further.

The tail of this crow is round at its extremity, and it extends a little beyond the wings. Its cry has no affinity with that of the common crow.

THE WHISKERED JACK DAW.

THIS bird, which is found at the Cape of Good Hope, is nearly the size of a black-bird ; it has the black and variable plumage of the jackdaw, and the tail longer in proportion than any of that species ; all the quill feathers in the tail are of an equal length, and, the wings being folded, reach only to one half of its length. It is the fourth and fifth quill feathers of the wings which are the longest, being two inches and a half longer than the first or prime ones.

There are two things which are remarkable in the exterior of this bird* : *first*, those black hairs,

* See the plate accompanying this volume.

hairs, long and flexible, which spring from the root of the upper chap, and which are as long again as the beak, besides other feathers, shorter, more stiff, and inclining forwards, which surround the basis of the beak as far as the corners of the mouth : and *secondly*, those long and straight feathers on the upper part of the neck, which wanton on the back according to the different motions of the head, and which form a sort of mane.

The beak, the feet, and the claws of this bird, are black. Its total length is eleven inches four lines; the tail is five inches long; and the wings, when extended, measure one foot seven inches; when folded, they project about one half over the tail, the quill feathers of which, as already mentioned, are equal.

THE MAGPIE OF MACAO.

THIS magpie is one third smaller than ours. The forehead, the tail, the beak, and the feet, are black; the top of the head and the rump are of a cinereous grey; the neck and the

2 C 2 breast

breast are of a brown grey ; the belly and the legs of the same colour, only clearer: the back, the small covert feathers of the wings, and those of the under part of the tail, are a red colour ; the prime quill feathers of the wings are of a shining black, with shades of green. On the four longest quill feathers there are two white spots, one on each side of the stem ; so that when the wings are folded, only one of these spots is visible. The iris of the eyes is yellow.

Sonnerat found this species in the island of Macoa in China; but he could only obtain a description of it, which does not form the most interesting portion of natural history.

THE RED MAGPIE OF CHINA.

ANOTHER bird, which Sonnerat observed in China, and which he has called the *Red Magpie of China*, possesses, in fact, all the characters of the magpie, viz. a strong beak in the form of an elongated cone, and a little curved; the feathers at the basis of the beak projecting

projecting forwards; the toes and the nails crooked; ten quill feathers in the tail, which is as long as the whole body, and sloped.

“ This magpie,” says Sonnerat, “ is, in appearance, like the European blackbird; the head is brown; the neck of the same colour, but much clearer; the breast and the belly are of a reddish white; the back and the rump are of a yellowish red; the small feathers of the wings are of a dirty red colour; the shortest of the large ones are grey on the external side, and brown on the internal; the largest are entirely of a brownish black; the first two feathers of the tail, or the longest, are grey, terminated by a transversal brown stripe; the lateral ones are grey, as far as one half, brown the rest of their length, and terminated by a transversal white stripe; the iris is of a reddish yellow colour; the beak and the feet are black.”

It appears that this species of magpie is diffused over a vast extent of country; for Levaillant, who has also described it, saw one in a cargo of birds, arriving from Bengal.

THE MAGPIE OF NOVA SCOTIA.

AMONG the different birds which Labillardiere killed in Nova Scotia, this learned traveller remarked a magpie, the plumage of which is entirely black, with the exception of the neck, the belly, and the back, which are white. The beak is of a light black colour for two thirds of its length ; the rest is yellowish ; it is slightly notched at the extremity of each chap. The tail is long and sloping.

THE MAGPIE WITH EAR-RINGS.

THIS is a bird of New Zealand, very remarkable for a fleshy excrescence, cylindrically formed, and about ten lines in length, which, springing from the cheeks, hangs on each side of the head. The plumage is grey, approaching

proaching to brown; a whitish streak edges the feathers of the head and neck, while a clear-brown spot occupies the centre of those in front of the neck, and all the under part of the body, upon a dirty white ground. The throat is white. A large spot of a beautiful yellow colour covers the middle of the belly. The large quill feathers of the wings are terminated by white; those of the tail have a spot of the same colour towards the extremity. The beak is black; the feet are of a yellowish grey; and the claws of a brown grey colour.

The total length of this bird is fifteen inches; the beak is elongated and attenuated; the tail is very sloping, and about seven inches long; lastly, the claw of the interior toe is more curvated and longer than the others. A bird of this species is preserved in the Cabinet of Natural History at Paris.

THE JAY OF NOOTKA BAY.

THE blue jay, described by Buffon, is not the only bird of that species found upon the north

north west coasts of America, nor even the only one that has much of blue upon its plumage. Steller discovered a sort, the wings and tails of which are blue, and the rest of the plumage blackish. The middle quill feathers of the wings, and the two middle ones of the tail, are striped with black; and the small covert feathers of the wings, as well as their large quill feathers are of a dirty white colour on the inside. The beak and the feet are blackish. The feathers of the head form a very short kind of crest. The total length of the bird is fourteen inches. Its tail is long and sloping.

THE GREEN JAY.

IN that part of America opposite to where the blue jays are found, exists a species which is entirely green. To this difference of plumage they add an attribute which is peculiar, viz. having the iris of the eyes of a silvery white colour, an attribute which naturalists have employed for designating this bird by.

Brown,

Brown, who first described it, considered it as a jackdaw, and it must be confessed that on a superficial view, the figure which this author has given might be mistaken for a jackdaw rather than a jay.

The size of this bird is that of the common jay. Its head is of a deep green, marked with blue on the top, and lower down with a pale green, with a spot of the same colour under each ear, and another on the hinder part of the head. The neck, the breast, the belly, the back, and the covert feathers of the wings, are of a deep varying green colour: an obscure brown hue covers the quill feathers of the wings, and those of the tail; the first are terminated with blue, and the second with white. The feet and the beak are blackish.

This species lives in the thickest forests of Surinam and Carthagen, and it feeds upon fruits, grains, and insects. Its voice is sonorous, but monotonous. It is easily domesticated, and it may be reared by feeding it with raw and baked meats.

THE PURPLE-HEADED JAY.

THIS jay is supposed to be a Chinese bird. Latham saw a figure of it in the collection of Dr. Fothergill. Its head is of a beautiful purple colour ; but the rest of its plumage does not correspond with this brilliant hue of the feathers on the head ; the upper part of the body is reddish, and the under yellow. The quill feathers of the wings and the tail, and the beak, are blackish, and the feet are red.

THE SMALL CHINESE JAY.

SONNERAT gave this name to a small species of jay, which he saw in China, near the edges of the waters.

This bird has all the characters of the jay, though it has not the ordinary brilliancy of colours

colours of this species; its beak is straight, long, and compressed at the sides; the feathers at the base of the beak incline forwards, and cover the nostrils. It has strong feet, crooked claws proper for seizing small birds, ten quill feathers in the tail, the two prime ones being longer than the lateral ones.

It is one third less than the European jay; the front part of the head and throat are black; the forehead is white; the top part of the head and the neck are of a deep cinereous grey; the cheeks white; the back, the rump, and the small quill feathers of the wings grey; the breast and the belly the same, but not so clear; the large quill feathers of the wings and tail brown; the iris of a reddish yellow; the beak and the feet black.

THE CUCKOO.

THE BROWN-STRIPED CUCKOO.

THIS is a doubtful species, the native country of which is not known. Sparmann was the first who described it, but from a preserved carcase only, and which may have been badly kept or prepared.

The total length of this bird, according to Sparmann, is thirteen inches and a half; the feathers of the body are striped with black and brown; the rump a reddish colour; the body underneath whitish, undulated with black; the quill feathers of the tail sloping, and of a reddish brown colour, with black stripes at their extremity; the beak black, and the feet yellow.

THE DOTTED CUCKOO.

THE body of this bird is, on the top, of a shining brown colour, dotted with red; on the under part it is a dirty white. Its tail, which is sloping, has the upper covert feathers very long; the beak is black, and the feet, which are long, are brown.

Some naturalists suppose that this bird is a native of Cayenne; but Sonnini doubts it very much, for he never met with any of the species at Guiana, nor observed any in the various birds which have been sent from hence.

THE SMALL INDIAN CUCKOO.

THIS is about the size of a blackbird, but not so thick, and more elongated in its form.

The

The head, the top part of the neck, the back, and the wings, are of a brownish red, striped transversally with black; the tail is of the same colour, and it has besides some black irregular spots along the stem of the quill feathers; the under part of the neck and of the body is white, and striped transversally with black; the iris, the beak, and the feet, are yellow.

This is entirely a new species, and was discovered by Sonnerat.

THE BAWLER.

THERE is nothing remarkable in the plumage of this bird; it is almost entirely of a blackish brown colour. Its note consists of many sounds variously accented, and which is heard at a great distance. As he passes many entire hours in singing, without any cessation, he betrays himself to the hunter, and consequently falls a prey.

Levaillant has called this cuckoo the *bawler*, and he was the first that discovered it; he found it

it in the interior of the southern part of Africa, and what is said above has been extracted from the travels of this celebrated writer.

THE MALKOHA.

IT is thus that the natives of the island of Ceylon denominate a bird which is ranged by nomenclators in the list of cuckoos, though its habits separate it from birds of this genus, all of which are devourers of insects, while the Malkoha, according to Foster, feeds solely upon fruits. This bird, therefore, cannot be considered as a cuckoo, since it differs from it by a feature so characteristical and so decided as that of food, which necessarily supposes a dissimilarity of organisation in the internal parts; but, as the external conformation of the malkoha approaches nearer to the cuckoo than to any other bird, it may, properly enough, be here mentioned, with the above salvo; though we agree with Sonnini in protesting against a classification of it with the cuckoo genus, after the example of certain nomenclators.

clators. In the absence, however, of certain data, which may specifically designate its place in the scale of creation, it becomes a necessity to place it as near as possible, according to our erring and fallible judgments.

The total length of the malkoha is sixteen inches, and its weight four ounces; its beak is thick, very much curvated, and of a greenish yellow colour; its tail is very long and sloping; and a sort of large cap, as red as fire, surrounded with white, covers the head as low down as the eyes; the hind part of the head, and the top of the neck, have white spots upon a blackish green ground; the fore part of the neck, the back, the wings, and the quill feathers of the tail, are of a black colour, shaded lightly with green; the throat, the breast, and the belly, are white, the same as the end of the tail; the feet are of a pale blue colour.

THE PARROT.

THE PAPOU LORY.

SONNERAT has thus designated a very pretty species of lory which he found among the Papous. Its motions are vivacious and graceful, its look full of fire, and its voice piercing. In other respects it approaches to the lory genus, only its beak is smaller, more pointed, and more curvated. Its shrill voice seems to articulate the word *lori*, whence, by an onomatopœia, the name is derived.

There are no species of lory found in China, in the East Indies, or even in the Phillipine Islands, except those which are carried thither; but they exist in the Molucca Islands, in those of the South Sea, and in New Guinea. Besides, these birds are very delicate, and often perish from cramps and other affections arising from an excess of muscular contraction; and hence they are rarely transported alive into Europe.

Our small Papou lory is one half less than the common parrot. A beautiful lively red, colours the head, the neck, and the breast. Towards the occiput there is a double spot of a lustrous blue colour, and a violet black. A yellowish green tinges the wings and back, with the exception of the rump, which is a beautiful blue in the middle, and a shining red on the sides. Towards the sides of the breast are two yellow spots. The belly is blue in the middle, and red on the upper part. The tail is green at its insertion, and yellow at its extremity; its two middle quill feathers are very long. The beak and the feet are reddish. There are three varieties of this species; the first, with the breast purple, and a transversal black stripe bordered with green, on the belly; the second species has the lower part of the back of a blackish blue, with a green or yellow spot between the wings; the thighs and the sides yellow; the third species is distinguished by a green spot on the belly, and an irregular yellow crescent on the breast.

THE PAROQUET LORY*.

THIS beautiful paroquet has never yet been described by any ornithologist; and the plate which we have given is copied exactly from nature.

This species has many affinities with a variety of the paroquet of the Pacific Ocean: yet it differs from it in some essential characters. Its head and neck are of a beautiful scarlet red, except the under part of the lower mandible, which is of a clear yellow colour. The head is of an olive tinge, and the prime covert feathers of the wings are formed of blue feathers, bordered with a delicate green. The quill feathers of the wings are of a lively and dazzling blue colour, as well as the lateral quill feathers of the tail. The intermediate ones are of a yellowish green, the same as the breast and belly. Under the tail, near the vent, the feathers are of a beautiful red, the

2 E 2 same

* See the plates accompanying this volume.

same as on the head. The iris is a hazel colour, the feet cinereous, and the beak of a bluish grey.

The size of this paroquet is about that of a large lark. It was brought from the islands of the South Sea. It had been made a present to Madame Bonaparte, and Sonnini obtained permission to have an engraving made from it. Like many other species of paroquets, the tail of this beautiful bird is long and formed *en coin*. It has affinity with the *lorys*, as the name which we have given it indicates. Of its manners nothing is known, but most probably they do not differ much from the congenerous species. It is about seven or eight inches long.

THE PAROQUET OF THE ISLAND OF LUCON.

SONNERAT describes, in his voyage to New Guinea, this pretty, long tailed species: its general colour is a beautiful green; a hood of a lively blue colour covers the head; the small covert feathers of the wings are black, with

with borders of a yellowish brown; the large covert feathers are terminated with blue. This paroquet has a large reddish beak; the top part of the body approaches towards a grass green colour; the under part is a faded yellowish green: the feet are black, and the eyes whitish or grey.

THE PIGMY PAROQUET.

THIS is one of the smallest species yet known in the family of paroquets, for it is not above six inches in length; and its size does not exceed that of a canary bird, which forms a striking difference between this and some of the other species, which often attain to the size of a hen.

This small race, which is found in the islands of the Pacific Sea, is covered with green feathers, the edges of which are of a greenish yellow colour. The under part of the wings is brown; the beak is whitish, and the feet are a livid colour.

THE LARGE PAROQUET OF CHINA.

WE have continued to this animal the name imposed upon it by Sonnerat. It is particularly distinguished by its large red beak, the size of which is almost equal to that of the whole head together. The iris of the eyes is bluish; the head and the breast are of a greenish grey, and the covert feathers of the wings of a clear yellow. The rest of the body is green.

This bird has hitherto been found no where but in China.

OF THE SPARROW KIND.

THE WHITE-TAILED BLACKBIRD.

THIS is a species which is found in Europe, but of which neither Buffon, nor his coadjutor Guenau de Montbeillard, makes any mention. There may indeed be some doubts whether it is a blackbird, for the author of the work on the natural history of the country in which it is found, calls it a crow; and yet, to judge from its figure, there can be no doubt that it is rather a blackbird than a crow.

All its plumage is black, except the rump, the legs, and the quill feathers of the tail, the pure white of which gives a lustre to the rest of the bird. A black band forms the extremity of the tail, and it extends to the two middle quill feathers as far as nearly one half of their length. The beak has a blackish tinge, and the feet and the claws are of a light yellow colour.

This

This bird is not so large as the common blackbird ; it is about eight inches from the tip of the beak to that of the tail ; it is found in Spain, and particularly in the kingdom of Arragon ; but it is not known whether it migrates from hence ; of its manners and habits also nothing is known.

THE RÓCAR.

THE foreign and native birds, which are classed under the head of blackbird or thrush (for some naturalists unite these two under the generic name of *turdus*) are numerous ; and yet the list is far from complete. Since the period when Guenau de Montbeillard finished this portion of the natural history of birds, the taste for travelling, the spirit of enterprize and research, have been more generally diffused, discoveries have succeeded each other with rapidity, and numerous species of birds, among which are to be found many blackbirds, have augmented our knowledge in ornithology, though not always, it must be confessed,

confessed, with the same degree of precision. This observation indeed may apply to many birds which naturalists and travellers have considered as distinct species in the genus which we are now describing; most probably many of these are misplaced. Error is inseparable from all incipient knowledge; and the most powerful genius cannot be secure from it, because nothing can supply the place of facts; when they are deficient, the field of conjecture, fertile in error, is thrown open without reserve. But surer observation finally comes to confirm or destroy conjecture, and to dissipate uncertainty.

These reflections often arise when we read in the work of a celebrated observer perpetual attacks (and those too strong to suppose that they are dictated by a love of the science) against Buffon and his excellent coadjutor Guenau de Montbeillard. Doubtless, the highest praises are due to the intrepid individual whom an ardour for discovery has engaged in distant and perilous voyages; but this admiration might be bestowed, and would be bestowed, more willingly, if we saw that individual possessing a manly consciousness of his own services, and a liberal candour towards the services of others, and not perpetually

tually indulging in a waspish and petulant irritability towards those whose names fame has consecrated for ever.

It is not until he has vented freely a deal of abuse upon those naturalists who have not gone into Africa to examine the rocar in its wild state, that Levillant begins to give the history of this species of blackbird, which is one of his numerous and interesting discoveries in ornithology. This bird has a great affinity with the rock blackbird, not only in its external characters, but also in its natural habits. It establishes its residence in the midst of rocks, in the most rugged and desolate spots; it is very fierce and very wild, and when one approaches near enough to take aim with a musquet, the pains which we have taken are often lost, for the bird, placing itself upon the projecting points of the rock, overhanging some precipice, falls into it, and baffles the hunter in his expectation of his prey. Hence this species, which is very common in nature, is very rare in our collections.

Like the rock blackbird of Europe, the rocar hides its nests in the holes of the most inaccessible rocks; the female lays five eggs, never more, and sometimes less. Its note is as agreeable as the rock blackbird of Europe,
and

and its voice, which is soft and flexible, easily appropriates to itself the song of all the birds within its hearing. This striking conformity in the manners of these two birds is accompanied with a very considerable resemblance in the colours of their plumage; the African one differs from ours only in having all the under part of the body from the breast to the tail of a lively red colour, as well as the rump; the iris of the eyes is of a reddish brown. Such a similitude between birds of distant countries made Levillant suspect that they did not belong to distinct species; and though very reserved upon the supposed influence of climate in these particulars, he did not hesitate to consider the rocar as the same bird as our rock blackbird, having simply undergone some modifications from the change of situation. But one thing checked him, and seems to forbid our uniting these two blackbirds in one species, viz. the difference of certain exterior formations, upon which the variation of climate has less influence than upon the colours of the plumage. In fact, the length of the wings presents a remarkable disparity. When they are folded they extend nearly to the extremity of the tail of the rock blackbird, while in the rocar they do not project above

one half so far. Another discrepancy, which in the opinion of Levaillant, ought to be considered as characteristical is, that the female of our rock blackbird is distinguishable from the male only by a diminished lustre of colour, while the female of the rocar is not only smaller than the male, but of a clear brown colour on the head and neck, whereas these parts in the male are of a whitish grey. The result of an attentive examination of the two birds, which are very nearly approximated in many particulars, proves, however, that they cannot be united in such a manner as to form but one distinct species.

The male rocar is nearly the size of the European blackbird, but its tail not being so long the form of its body appears more concentrated; when young it has not a bluish head, which gives it a greater affinity with the female, as the hues of the plumage of both are very weak, and the red feathers are edged with brown, and the brown with red: this disposition of the colours gives them the appearance of being covered with scales.

Levaillant killed, upon Table Mountain, a young male rocar that had a white tail, as well as a part of the wings, of the same colour; he saw this species of blackbird upon

upon all the mountains in the vicinity of Cape Town, and in the interior of the southern countries of Asia.

THE SPY*.

THIS is another species of rock blackbird which Levaillant found in Africa, and which he is the first that has described. No bird has more cunning, more mistrust, and even malice, than the spy; to him, in particular, may be applied the common proverb, *fin comme un merle*†, for, according to Levaillant, he possesses in the highest degree the intelligence and finesse of instinct. To his subtlety he joins a great celerity of motion; he delights in letting the hunter approach towards him, while

* Levaillant called this the *espionneur*, but Sonnini abridged it to *espion*, the French language not admitting the former vocable.

† The translator is not aware of any synonymous, or even analogous proverb in English; its literal meaning is, *as cunning as a blackbird*.

while he gradually moves forward, but never so much at a time as to take away the hope of being finally caught. He accompanies this with certain motions, as if he purposely endeavoured to brave his enemy, and to mock him; each time that he places himself on the point of a rock, he turns quickly round to front the hunter, then he elevates himself upon his feet, spreads out his tail, and beats his wings, at the same time uttering a piercing cry. If his pursuer hides himself in order to surprise him, he makes a considerable circuit, and then places himself in such a manner that he can watch all his motions; and if at last the hunter can approach near enough to fire, he must wait till he takes flight, for, having his eyes fixed upon the marksman, his sight is so correct and piercing that he plunges to the earth the moment the flint strikes against the lock, and thus escapes the shot. The only method of overcoming the cunning of this bird, and of taking a sure and effective aim, is to hide the musquet in the bushes, and to shew both your hands empty, walking about without seeming to take any notice of the bird; emboldened by this, he will become less mistrustful, and if the moment be seized when he appears to have the least precaution

caution about him, and the gun slowly and leisurely resumed, then there is a chance of finally succeeding.

This bird, which it is so difficult to deceive or to surprise, hides, in the profound cavities of the rocks, its nest and its eggs, which are generally four or five in number; both the father and the mother join their efforts to defend to the last extremity, their young ones, against any enterprising intruders; threatened in what they hold most dear, they disdain the artifices to which they have recourse when they are less interested, or when they are concerned only for their own welfare; their own preservation no longer deters them, resigned entirely to the sweetest and liveliest affections of nature, they despise dangers, and consulting more their feelings than their strength, these feeble creatures attack, with uncommon energy, the ravagers whose approach they cannot prevent. But the care which they take in placing their nests at the bottom of narrow cavities, and the precaution which they always have of not entering it while any person is in the vicinity, from the fear of disclosing the retreat of their young ones, prove of more use to them than all their vain but natural courage, and save them
from

from the pain of being separated from the fruit of their loves.

The colours of the plumage of this species, which approaches still nearer to our rock blackbird than the preceding, are nearly the same as in the rocar; but their distribution is somewhat different. The bluish grey extends as far as the back, on the upper part of the body, and as far as the breast on the under; the quill feathers of the wings, and the two middle ones of the tail, are of a blackish brown, and are edged with a small white stripe; the breast, the rump, the upper covert feathers of the tail, and even the quill feathers, with the exception of the two intermediate ones, are of a lively red, which becomes weaker as it approaches towards the belly; the iris of the eyes is of a yellowish brown; the beak, the feet, and the claws, are black. The tail is a little rounded at its extremity, and the wings, when folded, extend to above one half of its length. The body of the female is smaller, and the tints of the plumage weaker. The bird, when young, is a brownish grey on the top of the body, and a reddish grey on the under part.

This species of blackbird is found on the Table Mountain at the Cape of Good Hope,
and

and in general, on all the mountains of the same country, formed by the rocks; yet Levassant did not meet with it along the eastern coast of that part of Africa, though it contains many lofty eminences of this nature.

THE TALKER.

THE preceding bird is always spying; the present one is always talking or crying, and its cry expresses very distinctly the Dutch words *Piet, myn vrouw*, which signify, *Peter, my wife*. One of the Hottentots in the train of Levassant, having killed a female blackbird of this species, was so struck with the voice of the male, which seemed to call for his wife, that he would not fire upon any more of them.

Besides this cry, and a slight sort of whistling which the male has, this bird, which Levassant described the first, sings its amours in a very agreeable and sonorous tone; it is principally in the morning and the evening that he utters his melodious notes; sometimes

he prolongs them through the night like the nightingale, and like it, he is silent when he has fulfilled the destiny of nature, by uniting himself to a companion for the production of beings like himself.

The colour of the plumage of this bird is a mixture of brown, bluish grey, and olive, on the upper part of the body, and on the under part an orange yellow colour, which becomes weaker on the belly. The quill feathers of the wings are black, edged with a bluish grey; the four middle ones of the tail are blackish; a beautiful yellow colour prevails on the others, with a blackish border. The feet are yellow; the iris of the eyes is a deep brown, and the beak is horn colour. The tail is quadrangular at its extremity, and the wings, when folded, do not extend far beyond the point of its insertion.

The female is smaller than the male, and its colours are less decidedly marked. In the young bird, some feathers on the back, and the upper covert feathers of the wings, have an orange-coloured border.

This species of blackbird is found in the south of Africa, in the forests of Anteniquoi, and in the environs of Bruyntjes-Hoogte, as well as in the country of Caffraria.

THE GREEN, COLLARED BLACKBIRD.

NO naturalist whatever has taken any notice of this species of blackbird, of which, an extremely well preserved individual makes part of the collection of Viellot, who permitted Sonnini to describe it. He received it from a friend at Bourdeaux, who had brought it from the kingdom of Congo, where this beautiful bird is very common.

The plumage is, in general, of an olive green colour on the top of the body, and of a lighter tinge on the under part. But there are brilliant exceptions to this general hue, which interrupt its uniformity. The forehead is yellow; a black covering, which is attached by a straight stripe of the same colour to the angles of the beak, forms a sort of gorget, which is hung upon the lively red feathers of the throat, and spreads over the front of the neck and the breast. This dazzling colour of the breast changes into a dull brown colour, and continues in a straight line as far as the

inferior covert feathers of the tail, which are also of a brilliant red. The tail, which is slightly rounded at its extremity, is of a blackish brown, the same as the beak, the feet, and the claws: the eyes have their iris yellow.

Dimensions. Total length, eight inches; the beak ten lines and a half: the feet, thirteen lines; the middle toe, ten lines; the lateral toes are somewhat shorter; the hind toe is seven lines: the breadth of the wings, from tip to tip, when extended, eight inches; length of the tail, three inches; the wings, when folded, do not exceed the point of the insertion of the tail more than an inch.

The chief food of this bird is berries: it perches upon the top of the loftiest trees; its voice is strong and sonorous; its whistling noise is heard at a great distance, and which has some affinity with the note of the European quail. It is only at those moments, when he deafens himself by his own clamours, that he can be approached, being naturally timid and distrustful.

THE SCALY BLACKBIRD.

THE plumage of this bird being regularly festooned, so as to resemble the appearance of scales on a fish, has given rise to its denomination by Levaillant. This traveller was the first that ever described it, and he saw one preserved in the collection of M. Temmink, envoy at Batavia.

The upper mandible is more curvated than is usual in blackbirds; the tail is a little sloping, and the wings, folded, reach to about one half of its length. It is about the size of a thrush; the head, the neck, and the breast, are of a dull black colour; each feather on the breast is marked with a spot in the form of a V; the rest of the under part of the body is a dirty white colour, shaded with yellow, and each feather is terminated by a sort of black festoon; the feathers on the upper part of the body, as well as the upper covert feathers, and the quill feathers of the wings and tail, are black, edged with yellow, except the
middle

middle quill feathers of the tail, which have no border. The beak and the feet are of a blackish brown.

THE BLACKBIRD OF THE SAVANNAHS.

SONNINI had communicated a description of this bird (which no naturalist had hitherto described) to Guenau de Montbeillard, towards the end of the year 1775; but his history of the blackbird, was at that time published*, and he could therefore make no

* The general reader may, perhaps, require to be informed, that Buffon, while employed in that part of his natural history which embraced ornithology for its subject, was taken ill, and laboured under a severe indisposition for nearly two years. Being then at an advanced period of life, two years lost, in the prosecution of such a vast design as his natural history, were a serious consideration; and being himself particularly anxious to complete the mineralogical part, about which he confesses himself to be more conversant, and besides, more attached to the study, he engaged Guenau de Montbeillard to carry on the ornithological part, and their respective labours are distinctly noticed in Sonnini's edition of Buffon. *Trans.*

no use of Sonnini's communication. The form of the beak, and that of the body, which is very much elongated, the length of the tail, which is considerably sloped, the short wings, compared with the size of the body and that of the tail, and, above all, a great conformity in manners and habits, approximate it to the blackbird more than to any other species. But it has one attribute, which is particular to it, namely, a naked place on each side of the neck, which commences at the under chap, and extends about ten lines, that is, almost towards the lower part of the neck; this naked skin, which is somewhat more than two lines in breadth, forms the separation between the black feathers with which the upper part of the neck is covered, and the yellow ones of the under part; and it is tinged with this last colour the same as all the under part of the body. The top, and the sides of the head, as well as one half of the upper part of the neck, are black; this colour becomes lighter in approaching towards the back, where it is brown, and still continuing to grow weaker, it becomes reddish on the rump.

The upper covert feathers of the wings are blackish; those which are near the body have a reddish border; the quill feathers have the same blackish tinge, but they have, each of them,

them, on their under side, and towards their insertion, a white spot, which gradually increases in size ; the more external covert feathers on the under part of the wings are black and white, and the others striped with yellow and black. The tail is black, and terminated with white ; the first quill feather on each side, which is also the shortest, is white for one half of its length ; there is less upon the others, and the white place diminishes by degrees until the two middle quill feathers, which have only a small spot of this colour at their extremity. The beak is black. The feet and the toes are yellowish, and the claws are blackish.

Dimensions. Total length, nine inches ; of the beak, fifteen lines ; of the tail, three inches, three lines and a half ; of the wings, three inches ; of the tarsus one inch ; of the middle and the hind toe, ten lines.

This bird is an inhabitant of those vast watery spots, of those extensive spaces, those singular mixtures of earth and water, which, in different parts, form the irregular soil of French Guiana. Though it is very common there, yet it is not seen in troops ; it remains isolated, or, at most, in couples ; its flight is short and heavy ; it utters a dull, monotonous kind of whistling.

THE STARLING OF DAOURIA.

IN the northern countries of Asia, between the Onon and Argoun rivers, which bathe the regions of southern Daouria, Pallas met with a species of starling that had a most superb plumage, and which appears to be confined to this part of Siberia, for this learned traveller has not met with it in any other part.

This bird keeps principally among willows, where it eats insects, and even the leaves of certain plants. The female lays her eggs in the holes of rocks, and sometimes in the nests of sparrows, under the roofs in villages; the eggs are of a deep green colour. In other respects it has all the habits of a common starling, but it differs greatly from it in the splendour of its plumage. The crown of the head, and the back between the wings, are of a beautiful blackish violet colour; green shades appear upon the black quill feathers of the wings and tail, and they derive an additional lustre from two white stripes. The rest of the plu-

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mage is of a cinereous white. The total length of the bird is somewhat more than six inches; its tail is a little forked, and its beak is black. The colours of the plumage of the female are not so bright; she is generally of a dirty cinereous white colour; her back is brown; the wings and tail are black, but without any lustre or shadings of green.

Pallas has described the starling of Daouria in two different works, and under two different names; first, in the fourth volume of his *Travels in Russia*, and afterwards more minutely in the *Acts of the Academy at Stockholm*, for the year 1778. It might be supposed that these two descriptions are in fact the descriptions of two distinct birds, but if they be accurately and carefully collated, they will be found to be the same.

This may teach us a useful lesson in natural history, viz. that it is impossible to ground certain facts upon the mere descriptions of external particulars. It is pretty certain, that were a bird to be given to three different naturalists, and each of them required to produce a description of the colour of its plumage, &c. every one would differ more or less. There is, in fact, nothing so fallacious as colours, unless such as are simple and uniform;

form; but those minute shadings which are attempted to be embodied by the pen, are absolutely beyond the reach of precise language.

THE SHINING STARLING.

THE plumage of this bird is in fact extremely glossy. The eye is struck by the brilliant shades which alternately appear and disappear according to the motions of the bird; in the sun they absolutely dazzle. A velvet black colour, a green, shaded with blue, the purple and gold mixed and intermingled with a delightful skill, compose the ground of that rich ornament in point of hue, which this bird possesses. A white stripe, which extends longitudinally on the wings, adds to the relief and the richness of these various colours. The beak and the feet are black. The size of this bird is about that of the common blackbird, and the quill feathers of the tail are very much sloped.

This beautiful starling forms a part of the superb cabinet of M. J. Temmink, of Amsterdam,

dam, and Levaillant has copied it in his splendid work on the natural history of African birds. He believes this one to be of African origin, and that it is gregarious, though he confesses that he has not been able to collect any data as to its habitudes or its natal country.

THE GEOFFROY.

THIS appellation is a deserved homage which Levaillant has rendered to the zeal and science of Geoffroi de Villeneuve, who brought from Senegal the first birds of this species which were ever seen in France. Many naturalists have thought that it ought to be ranked among the butcher birds, and the name of *the tufted butcher bird of Senegal* has been given to one of this species, which is preserved in the cabinet of natural history at Paris. It is not, however, possible to refuse concurring with Levaillant in the ejection of this bird from the tribe to which it has been assimilated.

Although

Although it has a very remarkable curvature in the upper chap, yet it differs from that of the butcher bird by its straight form, and by the flatness of its sides. Other characteristics likewise, which are easily perceivable, remove it from the genus of butcher birds. A large eyelid hangs round the eye; the base of the beak, and the apertures of the nostrils are entirely covered with the feathers of the forehead, which project forwards; the head is ornamented with a tuft of soft feathers which fall backwards; the quill feathers of the tail are cut in a square form at their extremity, and the wings, when folded, reach to about one half of their length; all which characters are distinct from those that belong to the butcher bird.

“ I am even persuaded,” adds Levillant, “ that, in its manners, the geoffroy differs greatly from birds of this last species; and, from the accounts which I have received, and from the examinations which I have made upon different birds that have passed under my notice, I do not think I am deceived in the opinion that they live in troops like the starling, that they feed in the same manner, and seek for their subsistence in humid earth, into which they probably plunge their beaks; and
this

this last opinion has arisen from the circumstance of my having always found upon the beak of all the individuals that I have seen, a sort of earthy incrustation."

From these remarks by an able and experienced observer, it seems allowable to place the geoffroy among the starlings rather than among the butcher birds, for it has striking and obvious affinities with the former, and but slight and dubious ones with the latter. With regard to the colours of its plumage, Levaillant thus describes them :

" The feathers near the root of the beak, as well as the tuft and the cheeks, are of a pure white. The head, and the feathers which surround the ears are black, approaching to an iron grey colour. The lower part of the neck behind, the throat, the front part of the neck, the breast, the sides, the belly, and the covert feathers on the inside of the wings, are of a snowy white colour. The scapulary feathers and the wings are black, which, in a certain light, presents a bluish tinge. A broad white stripe, which forms part of the large covert feathers of the wings, and of the edges of the longer scapulary ones, as well as the last quill feathers nearest to the body, crosses the wing longitudinally. The two lateral
ones

ones on each side of the tail are entirely white; the third has a little black at its root, and the others assume successively an increased portion of that colour. The beak is black; the eyelids are yellow as well as the feet and the claws.

THE LARK.

THE TUFTED LARK OF THE COAST OF MALABAR.

SONNERAT saw this species of lark on the coast of Malabar, and has thus described it:

“ This lark is about five inches nine lines, from the tip of the beak to the end of the tail; the wings are three inches four lines, when extended; the feathers on the top of the head are long, and form a crest which the bird can raise and depress at pleasure; they are brown, terminated by a white stripe. The feathers of the neck are of a clear red, marked by a longitudinal black band. The throat and the belly are of a reddish white: the feathers of the back, and the small ones of the wings, are brown, terminated with an edge of clear red; upon the extremity of each feather there
is

is a white spot; the large quill feathers of the wings, and those of the tail, are of a reddish brown, terminated by a border of red. The beak is black; the feet are reddish."

THE SMALL GREY LARK OF GINGI.

THIS was also discovered by Sonnerat, on the coast of Coromandel. Its size is about that of a goldfinch; its total length four inches and a half; and its wings, when extended, two inches nine lines. The head is of a cinereous grey colour; on the sides of the head there is a black stripe which commences at the upper angle of the beak, and terminates a little beyond the eye; the hind part of the neck, the back, the rump, the wings, and the tail, are of a dull grey colour; the throat, the front part of the neck, the belly, the small under covert feathers of the wings, and those under the tail, are black; the beak and the feet are of a reddish grey.

THE LARK OF TARTARY.

THIS species appears to differ from all others in some particular characteristics which are peculiar to it. Its beak is thicker and more convex than that of other larks; the angles of the chaps and its nostrils are covered with feathers, or rather with thick hairs; and its tail, which is of a middling length, is a little forked. Add to these differences a form very considerable, and which is similar to that of the starling.

When the bird is old, the whole body is of a deep black colour; a small whitish stripe, with which the feathers of the head and the under part of the neck are encircled, is scarcely perceptible; this border is somewhat larger on the feathers of the back and under the wing, and hardly apparent on the upper covert feathers; the quill feathers are black; from the tenth quill feather to the nineteenth, they have a whitish edging; all the quill feathers

thers of the tail are very black ; the middle ones have a little white stripe, and the rest have somewhat of a white tinge at their ends. The beak is horn colour, and a little yellowish, but its point is brown ; the feet are black.

The young ones and the females have their plumage nearly the same as the common lark, and their feet are brown.

During summer, it lives in the dry and sandy solitudes between the Volga and the Jaik, and it may be found in all the most desert parts of Southern Tartary, where it is seldom heard to sing. In winter it approaches towards inhabited places, and they may then be seen in small troops. It passes this period of the year in the northern regions of the Caspian Sea, but not far beyond the fiftieth degree.

For these interesting details upon the lark of Tartary, we are indebted to the celebrated Pallas, who has consigned them to the world in his travels in Russia and the north of Asia. Sparrman has described this same bird under a different name ; and in the New Commentaries of the Academy of St. Petersburg, there is a description which S. G. Gmelin has given of another lark of the same northern country, and which he regards as a distinct species ; but it is highly probable that it is

only a simple variety of the lark of Tartary. In fact, this variable lark (*alauda mutabilis*) of Gmelin, is, like that of Tartary, of a remarkable size; the tail is somewhat forked, the plumage is black, the feathers of some parts edged with white, the beak whitish, and its tip blackish; it seems to differ only in the brown colour of its wings. Gmelin adds that its eyes are small, and of a livid brown. Age and sex produce also great differences in the colours of this bird; the female has the forehead whitish; the young ones are all of a cinereous or reddish colour, variegated with grey, and it is not till they become old that their plumage changes to black.

Another conformity between the variable lark of Gmelin and the lark of Tartary is, that the former is also silent like the latter; that in summer it keeps in the northern countries watered by the Volga, and that during winter it seeks the vicinity of inhabited places; it is then seen very common in the environs of Astracan.

THE LARK OF YELTON.

THIS is another large lark of the northern regions ; it has been found beyond the Volga, on the borders of the lake Yelton. It lives in troops. Its flesh is very delicate, and loaded with fat in the month of August.

Its size is the same as that of the lark of Tartary, but the form of its beak is different ; it is cylindrical and *en alêne*, nearly like that of all larks ; but it is thicker ; its tongue is also forked, and the claw of the hind toe, longer than the toe itself, is almost straight, so that it is impossible to doubt that this bird is in fact of the lark species.

It is almost entirely black ; there are some reddish feathers on the head, the back, and the covert feathers of the wings ; the sixth quill feather of the wing is edged, externally, with white, and the two middle ones of the tail are red. The beak is black at the basis, and whitish all the rest.

OF THE WREN AND TIT-MOUSE.

THE WREN OF SURINAM.

WE find in Fermin* a short account of a wren which frequents the island of Surinam. Brown has drawn and given the figure of it.

This small animal, about four inches and a half long, is not so remarkable, or so interesting for the beauty of its plumage, as for its song, which is very sweet and agreeable. It utters soft musical tones like those of the flute.

Its body is entirely brown ; but the back, the wings, and the tail, are striped with black lines, which are fixed and close. The feet are of a yellowish colour, approaching to brown, and this tinge is also observable upon the beak. The under part of the body is paler than the back.

* Hist. de la Colonie Holland de Surinam. tom. II. p. 201.

THE NORWEGIAN TIT-MOUSE.

BRUNNICH was the first that ever mentioned this species, which is distinguished by a greenish yellow on the top part of the body ; its breast is spotted with red, and its belly is bluish ; the head is not black as is usual, but the throat is yellow, and towards the vent the feathers are also yellowish ; the tail, which is forked, is of the same colour as the back, with the exception of the last lateral quill feathers, which are white on their exterior side.

THE TIT-MOUSE OF THE COAST OF MALABAR.

THIS species of bird is found even in the East Indies ; it lives principally upon caterpillars,

pillars, aurelias, and other small insects, which the viscous quality of certain plants retains prisoners. They fly round about with great vivacity, and climb trees with great rapidity; they are also very fond of oily almonds, and other sorts of grain.

The species which Sonnerat mentioned is grey upon the body; the throat, the wings, and the two quill feathers of the middle of the tail, are black; the under part of the body is of a flaming red colour; and part of this beautiful hue appears also at the base of the lateral covert feathers; the rump is red also; but in the female a lighter tinge prevails on all the under parts of the body; the bird is five inches, eight lines in length; its beak and its feet are black; the iris is red.

THE TIT-MOUSE OF HUDSON'S BAY.

THE groves of juniper which cover the sterile and frozen ground of Hudson's Bay, are peopled with a species of tit-mouse which lives upon these berries and blossoms; this
bird

bird easily supports the most intense cold; they fly in troops during the winter, and fix their nest in spring in the most obscure places. The female lays only five eggs. This bird, which is somewhat more than five inches in length, was first described by Forster, in the Philosophical Transactions, and afterwards by Muller.

All the feathers of this animal are long and thinly disposed; its beak and its feet are black; its sides of a rusty colour; the tail, which is rounded, is about two inches and a half long; a reddish brown covers the body, with the exception of the back, which is of a greyish cinereous colour. The throat is black, and edged, towards the breast, with a white stripe, which extends under the eyes; the quill feathers of the wings have a cinereous coloured border.

THE LARGE HEADED TOM-TIT.

THE particularity which distinguishes this bird arises from the swelling of the feathers

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which cover the head; each of them is broad and pliant, approaching near to each other, and so producing a sort of puffed appearance. The tail of this animal is very long, and its two lateral quill feathers are white at their extremity, while the others are black; this last colour covers the upper part of the body; the belly is whitish, and the breast of a reddish orange colour; the forehead and the wings have a white spot; the female is brown in those parts that are black in the male; their length is about four inches and a half; they are found in New Zealand.

There is also a variety of this species which is found in Norfolk Island, and which is almost entirely black, except the white spots that are on the wings and forehead; and the breast, which is of a pretty scarlet colour.

THE TIT-MOUSE OF NEW ZEALAND.

THIS is another bird which is very nearly approximated to the preceding species, but
which

which is however distinct from it by the characters of its plumage; it is about five inches in length; its beak, its feet, and the intermediate quill feathers of its tail are black; the top part of the body is of a cinereous red colour, and of a clear red on the under part. There is a white stripe on each side of the head; on the middle of the lateral quill feathers of the tail may be observed a white spot of a square form; the forehead is yellow, approaching to red, and the cheeks are of a cinereous colour.

Before concluding this account of foreign birds, which have a greater or less affinity with the tit-mouse, we will mention two other species, i. e. the *tit-mouse of Sæby*, and *that of India and China*.

The *tit-mouse of Sæby* is found in a country of Sweden so called. It is entirely a new species, which was discovered by Sparrman. It is almost wholly white, and has some light blue spots upon the tail and covert feathers of the wings; there is also a transversal mark on the nape of the neck; towards the eyes there is a black stripe; five quill feathers of the wings are brown, edged with white; the others are edged with a bluish colour; per-

haps this bird, though very pretty, is merely a variety resulting from the influence of climate. We should hesitate to multiply species in the theatre of the creation, simply upon the circumstance of a variation of colour; perhaps it would be more philosophical to reject such a trivial foundation, and confine ourselves to internal organization, to manners and to habits; where there is observed a striking difference between these last, there can be no fear of error in establishing a new species; but when no discrepancy between any of these obtains, there is always danger in extending the views of nature upon the simple data of colours.

The *Indian and Chinese tit-mouse* is described by Sonnerat, and is the same as the *parus indicus* of Sparrman. Both these birds have a plumage of a more or less deep cinereous colour, and greenish on the top part of the body; the breast and the belly are of a brownish orange colour, approaching towards ferruginous; the beak, the feet, and the wings, are of a brown colour, more or less deep; in the individual which Sonnerat saw and described, the colours are more brilliant and lively; the breast is of a shining yellow approaching

approaching to red ; the lateral quill feathers of the tail are black. Nomenclators have not hitherto mentioned the one described by Sonnerat.

HUMMING BIRD.

OF all animated beings the humming bird is the most elegant in its form, and the most brilliant in its colours. Stones and metals polished by art are not to be compared to this jewel in nature; she has placed it, in the order of birds, upon the lowest step of bulk, *maximé miranda in minimis* : her *chef d'œuvre* is the small humming bird; she has bestowed upon it all those gifts which she has only distributed in part to other birds; celerity, rapidity, grace, rich ornament, all are to be found in this little favourite. The emerald, the ruby, the topaz, all are to be seen in the brilliant colours of its plumage; it never sullies these colours by the dust of the earth, and, in its existence, purely aerial, it is hardly seen to touch the flowery turf, even for a moment; it is always in the air flying from flower to flower; it possesses their freshness and their splendour, it lives upon their nectar, and is to
found

found only in climates where this, its food, is perpetually renewed.

It is in the hottest countries of the new world that are found all the different species of humming birds. They are very numerous, and appear to be confined between the tropics, for those who in summer advance into the temperate zones make only a short stay there. They seem to follow the sun, to advance and to retire with it, and to fly upon the wings of the zephyrs in the train of an eternal spring.

The Indians, struck with the lustre and the sparkling beauty of the colours of these birds, called them *rays or hairs of the sun*. The Spaniards called them *tomineos*, a word expressive of their extreme minuteness; they weigh only 12 grains. We shall here mention some of the most remarkable species and varieties. There have been many discovered since the period when Buffon wrote their history, and we shall here notice some, according to their degrees of size, beginning with the smallest, as Buffon has done.

THE BLUE-HEADED HUMMING BIRD.

THE humming bird, which the Abbé Molina has denominated *blue-headed*, is not bigger than a hazel nut or filberd, but its tail is three times as long as its whole body. Its head shines with a beautiful golden blue colour, and its back is of a brilliant green; the colour of the belly is orange yellow; and, that every part of this little animated jewel should be in splendid concord with the body and the head, the quill feathers of the wings have purple stripes upon a blue ground; the tail is also of this last colour, and the beak is whitish.

This species is found at Chili, according to Molina, who is the first and only person that has made mention of it.

THE WHITE-BEAKED HUMMING BIRD.

THIS is a new species which Viellot has preserved in his collection, and which he has described, the first, in his natural history of humming birds, p. 88. Its most remarkable and prominent character is the whiteness of its beak, the point of which is, however, black; the feathers which cover the head are brown, with shades of a gilded carmine colour; on the back may be seen some light shades of gold upon a brown ground; the neck, the throat, and the breast, are green, gilded and edged with white; the belly is brown, with some shades of gold; the under covert feathers of the tail are of a dull white colour; the wings are brown, the feet yellowish, and the toes, like the claws, black.

The whole size of this bird is three inches three lines in length; it is found in French Guiana.

Viellot has also given the description and figure of a humming bird, which has a sort of

golden gorget on its breast. He presumes, with much probability, that it is a young individual, which has been caught at the period when they put off their first feathers in order to assume that rich covering, which, in this species of birds, is the attribute of an age already advanced*. The bird, which Viellot has described in the present instance, came from Surinam.

A small space, of a golden red colour, shines upon the dull grey colour of its breast; the rest of the under part of the body is of a cinereous grey; a dull green, which is slightly tinged with a golden hue, covers the top part of the head, the neck, and the body, as well as the upper covert feathers of the wings, the quill feathers of which are violet; those of the tail are green, and the two middle ones have their extremities white.

To this same ingenious naturalist we are indebted for the knowledge of another species of humming birds, which he calls the *blue-throated* one. Its throat is, in fact, of a beautiful blue colour, imitating that of sapphire; but this brilliant hue is only perceivable

* It is not till after the first moulting that the humming birds assume their lively and brilliant colours.

ble when the bird is contemplated in front, or when he is placed lower than the eye; when seen sideways the throat appears brown; the plumage on the top of the body is of a very brilliant gilded green colour; on the under part also it is of a shining green; shades of red and copper-colour sport upon the covert feathers of the wings and tail; the quill feathers of the wings are mixed with black and violet, and those of the tail with green and indigo blue; the feet, as well as half of the upper mandible, are black; underneath the beak is of a yellowish brown.

French Guiana is the natal country of this bird; it is three inches five lines long.

THE SASIN.

THIS name of *sasin* has been simplified by Sonnini, from the compound *sasinnéer sasin*, the appellation by which this species of humming bird is known in the bay of Nootka. It is sufficiently remarkable, particularly from the fiery red colour with which the throat,

and a part of the front of the neck, are covered. On the sides of the neck small tufts of detached feathers, longer than the others, and of the same brilliant colour, form a kind of ruff or collar; the rest of the under part of the body is white, very slightly tinged with the same beautiful red colour which prevails on the throat: the head is a gilded green; on the body a red brick colour prevails, and on the covert feathers of the wings a dull green; the quill feathers of the tail are red, which are pointed at their ends, and sloping, forming other characteristics which distinguish this humming bird: the length of which is about three inches and a half.

Instead of the fiery red collar which the male has, the female has, upon the throat, only some spots of a lively red colour; her plumage on the top of the body is a gilded green, and the lateral quill feathers of the tail are terminated with white.

THE ASH-COLOURED COLIBRI*.

IT is only the under parts of this bird that are ash-coloured ; the upper, as well as the middle quill feathers of the tail, are ornamented with that rich mixture of green and gold, that resplendent cloathing which nature has so prodigally bestowed upon all the individuals

* This name is derived from the Caribee language, and is used by Buffon to designate a second sort of humming birds ; Marcgrave, however, does not distinguish between the colibri and the humming bird. What, in fact, has been said of the latter, is precisely true of the former ; the colibri has the same manners, the same beauty of plumage, the same agility, the same grace, the same manner of building its nest, and the same rapidity of flight ; the only difference between the two species is, that the beak of the colibri is regular and slender, slightly swollen at the end, and not straight as in the humming bird, but curved in its whole length ; it is also longer. The slender and airy form of the colibri too, appears to be more elongated than that of the humming bird ; they are also in general larger ; yet there are colibris smaller than the smallest humming bird. All naturalists attribute to both these species precisely the same manner of living. *Translator.*

viduals of the humming bird and the colibri. There is a small white spot observable at the posterior angle of the eye; there are also shades of violet upon the prevailing black hue of the wings, and a black colour is to be seen upon a part of the quill feathers of the tail, besides the middle ones; the beak is brown underneath, and black on the top; the feet and the claws are of this last colour; the tail is rounded.

It is not certain to what country of America this species belongs; there is an individual of it preserved in the collection of Dufresne in Paris.

THE GOLDEN GORGET COLIBRI.

THIS species may be regarded as a new and distinct one. The following is the description given of it by Audebert, from the prepared specimen of one which was sent to him by Maugé, who first discovered it in the island of Porto Rico.

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“ The golden gorget colibri,” says he “ has the top part of the head and neck, the back, and the rump, of an obscure golden colour ; the upper covert feathers of the tail are green ; the intermediate quill feathers are of a greenish brown colour ; the lateral ones are violet, terminated with blue ; all the throat of this colibri is of a beautiful gilded green colour ; and, on the sides of the neck may be seen some shades of blue ; the breast is black, and this colour extends as far as the belly, where it becomes of a brownish hue ; the sides of the body are intermixed with green and gold. The beak is black as well as the feet.

“ The top part of the head of the female is brown ; the neck, the back, the rump, and the two intermediate quill feathers of the tail are of a brownish green, with some shades of gold ; the lateral quill feathers of the tail are of an obscure red colour for the first half of them, and the rest is black, terminated with white ; the under part of the beak, the throat, and the breast, are of a dirty grey colour, which becomes more and more obscure as it approaches the belly ; the beak and the feet are black.”

THE SPOTTED-BELLY COLIBRI.

IT is upon the assertion and judgment of Audebert that we make a distinct species of this bird, though it is not easy to discover in it any thing which might entitle it to be placed higher than a variety of some of those already described. Audebert himself confesses that the plumage of this bird, which is not very various nor very beautiful, seems to indicate a female or a young individual; but as it is not easy to determine what species it belongs to, he rather prefers to consider it as a distinct one, until further observation shall clearly point out its true classification. Thus circumstanced, there are no means of deviating from the plan of Audebert, as nothing is known of the bird but what he himself has communicated.

At first sight, this bird appears to be the same as the *zitzil* or *spotted colibri*: but the *zitzil*, in its total length, is nearly six inches, and this one is not more than four
from

from the extremity of the beak to that of the tail. On the other hand, there exists a slight difference in the distribution of the small white spots which are to be found only on the throat and belly of this bird, while they are spread over the covert feathers of the wings and even on the back of the zitzil. These disparities, however, are not to be absolutely considered as specific, and this restriction might equally apply to many other colibris, of which writers on ornithology have made distinct species, while there is every reason to believe that they are, for the greater part, to be attributed to age, to sex, or to moulting; and sometimes even to extraneous causes, such as the preparations of preserved birds, and even the ignorance or the quackery of those who prepare them.

But we have nothing positive with regard to the colibri of the present article; it is evident that it is very nearly approximated to some others; there is even a sort of affinity visible between them, though it is not easy to say to which species to assimilate it. In this state of incertitude, which it is hoped the zeal of future travellers, who combine a knowledge of natural history, will dissipate, it will be sufficient simply to give the description of this

colibri from a prepared specimen of it which is to be found in the Cabinet of Natural History at Paris.

A shining green colour covers all the upper parts of the body, as well as the two middle quill feathers of the tail; the under part is of a brownish grey, deeper on the breast than on the throat, and spotted with white; the wings have shades of violet colour, which appear upon a dark brown ground; the black quill feathers of the tail have their extremities white, and a stripe of the same colour on the top extends to about two thirds of their length; the beak and the feet are blackish.

Before we conclude this account of the most singular and beautiful part of the feathered creation, we will mention the *variegated colibri*, the smallest of the species that has yet been discovered. It hardly weighs fifty grains, and its whole length is scarcely an inch and a half.

On the head of this minute animal appears a tuft or crest of shining green feathers, and the tips of which reflect a golden hue; the wings and the tail are black, and the rest of the plumage is of a greenish brown, with shades of purple. The beak is black. This brilliant variety of shades and colours has given rise to
its

its present denomination, though some naturalists, Gmelin for example, have classed it under the appellation of the *small colibri*. But Buffon had already employed this epithet to designate a different species, and it became therefore expedient to adopt such a name as might convey an idea of the bird without, at the same time, confounding it with any other. It may here also be observed, that Gmelin has used the term *variegated colibri* to denote a small bird of South America, which he ranks among the colibris, though it certainly does not belong to this genus, for it has twelve quill feathers in the tail, whereas the colibris, and those that are specifically called humming birds (*oiseaux mouches*) have only ten. It is the same with two other birds which Gmelin has improperly placed among the colibris; the first has the shape of a sparrow; and the second, which is as large as the house swallow, is found at the Cape of Good Hope, where, as is well known, the humming bird does not exist; neither is it to be met with in any part of the old continent.

CHAFFINCH, GREENFINCH, GOLDFINCH,
LINNET, &c. &c.

THE works of modern naturalists, who have written since the time of Buffon, contain the descriptions of many species of birds that were unknown to that celebrated writer, because undiscovered. Among these are some varieties or species of the chaffinch, &c. and which we shall now present to our readers.

THE REDHEAD.

OF those new species, recently discovered, which we have alluded to above, there is, in general, so little known (comparatively speaking) that it is not always easy to decide to what genus they belong. Such is the bird which
Sparrman

Sparrman has described under the name of the *red-haired yellow-hammer*, without however designating either the country in which it lives, or what are its habits. Mr. Latham thinks that it ought to be classed with the sparrow genus (which nomenclators have already rendered too numerous), and he accordingly places it at the conclusion of chaffinches. But Sonnini is of opinion that there is no more reason for considering it as a sparrow than there is to regard it as a yellow-hammer, and he therefore very properly presents it to the reader as a particular species having qualities that approximate it to both; and in order to avoid all compounded and generic terms, he has simply denominated it the *red-head*, in which particular we have thought ourselves justified in following him.

The bird has, in fact, on the top and behind the head, a sort of head-dress or covering, which is of a brilliant red colour, bordered with black in the front and on the sides; a whitish stripe, with black spots, covers the forehead and the cheeks; the body on the top is black, and ash-coloured underneath, but the colour is deeper on the breast; the throat is of an iron grey colour; the tail is of a
blackish

blackish brown; and the beak of a brown colour.

THE ILIAC.

“ WERE I asked,” says, Sonnini, “ why this name is given to this bird, I could not tell; neither could I (for I am absolutely ignorant of it) declare the origin of this denomination, nor the motives that have concurred to its adoption; my own reasons for retaining it are an unwillingness to change names without some urgent necessity, for such mutations are a fruitful source of error and perplexity in natural history; and I therefore transmit, as I have found it in ornithological works, until, being more conversant with the bird it designates, some naturalist may substitute a more correct denomination; the one, for example, that it bears in its native country.”

All that is known of the *iliac* is confined to a cursory description, and a doubtful indication

tion of its natal spot. Merrem*, who was the first that spoke of it, says, that it is a bird of North America; but whether it be a sparrow or a chaffinch, it is a very large species, for it is equal to the starling in size. Its tail is quadangularly formed, and its total length is about six inches and a half. A mixture of ash-colour and olive is spread over all the upper parts of the body, each feather of which is terminated by brown; the rump alone has a reddish tinge, as well as the tail, the under part of which is grey; the cheeks are white, the quill feathers of the wings brown, and edged with red; the under parts of the body are entirely white, with the exception of the breast, which has on it some brownish grey stripes. The beak and the feet are yellow.

In reading this description it is impossible to prevent a suspicion from arising of some mistake on the part of naturalists who have represented this bird as of the sparrow species.

* *Fringilla iliaca*. Merrem. Icon. avi. p. 37 tab. 10.

THE GREENFINCH OF CHINA.

“ THIS bird,” says M. Sonnerat, “ has some affinity in its colours and in its size, with the greenfinch of Brisson, or the *yellow-hammer* of bird-catchers. The head and the neck are of a greyish green colour ; the back and the small feathers of the wings are of a clear brown, except those which are on the edge of the wings, they being black ; the shortest of the large feathers of the wings are black on the interior side, and of a reddish grey on the exterior ; the largest are yellow for one half of their length, black the rest, and terminated by a grey semicircular stripe ; the belly is of an earthy red ; the covert feathers of the tail are yellow on the under part ; the feathers of the tail are black, terminated by a white stripe ; the beak and the feet are of a greenish yellow colour.”—See *Voyages aux Indes et à la Chine*, par M. Sonnerat.

THE RED-HEADED GREENFINCH.

THIS species is nearly the same size as the common European greenfinch, and its length is about five inches; the tail is slightly forked; and the claw of the hind toe is longer and more curved than the claws of the other toes.

A brownish red covers the top of the head and the upper part of the neck; the throat, and the front part of the neck, are of an olive green, the colour of which becomes deeper on the back; the under part of the body is yellowish, being somewhat paler on the belly; the large covert feathers of the wings are brown, with a yellow border; and the third, fourth, fifth, and sixth quill feathers, have a yellow spot in their centre; the tail is blackish, and terminated by an ash colour. The beak is blackish at its root, and the under chap or mandible is of a pale grey colour. The feet are of a clear brown, and the claws are blackish.

Van Ernest saw, in Holland, a bird of this species alive ; it had been taken on the coast of Cochin China ; its cry was very similar to that of our greenfinch ; but besides this cry, it had a dull kind of warbling, which it uttered only after having fed, and in its moments of gaiety.

THE GREEN BULLFINCH.

THIS bird is found in the island of Java, and in the greater part of the islands of Sunda. It feeds upon various sorts of grains and particularly on rice, whole plantations of which it ravages. Its song is sonorous ; it builds its nest in trees and bushes, and it is composed of strips of grass.

It has the rump red, and one or two feathers of the same colour on the belly, excepting which, all the rest of the under part of the body is of a yellowish white colour ; the quill feathers of the wings are black, the two middle ones being marked with a red spot, and the first eight edged with red on their exterior

rior side. The rest of the plumage is of an olive green colour; the feet are yellow; the beak is black; and the iris of the eyes of a clear chesnut colour. The tail is of a middling length, and rounded at its extremity.

The female differs from the male, in being somewhat smaller, and the beak being brown; the top of the wings also are of an olive brown, with stripes of pale yellow; the wings are ash-coloured, the eight middle quill feathers whitish, edged exteriorly with a dirty white colour; the rump is reddish; the tail black, white at the extremity, and the feet yellow. It is said that this female has the same shrill voice and song as the male.

The colours of the plumage of the young bird are paler, and half of the under chap is yellowish.

THE DWARF BULLFINCH.

THIS little bullfinch is smaller than a tom-tit; it is common in India and China. The upper parts of the body are brown; the under

2 N 2 ones

ones of the colour of brick ; the quill feathers of the wings are white at their basis, and those of the tail are of a pale brown. The beak is black, thick, and very short ; the feet are brown ; and the quill feathers of the tail equal in length, and a little pointed at their extremities.

There are two varieties of this species. The one has the under parts of the body of a whitish cinereous colour, and the space comprised between the beak and the eyes yellowish, as well as the edges of the quill feathers of the wings. The other is white under the body and on the rump. Daudin, in his Ornithology, thinks it a great and manifest error to describe these two birds as varieties of the dwarf bullfinch ; because, according to him, they ought to be placed in the genus of yellow-hammers, both on account of their beak, and on account of their plumage, which is indicative of a true yellow-hammer.

THE RED-THROAT BULLFINCH.

THIS is an entirely new species. Van Ernest, says Daudin, has described it from an individual which he saw among the rarities of a merchant at Amsterdam, and which had been brought, among other birds, from the Floridas.

The plumage of this bullfinch is of a deep black colour, with shades of a bluish hue on the top of the body, and particularly on the wings and tail; the throat is of a red colour; the rump is brown; a white spot, which is more apparent underneath, forms the end of the first two quill feathers on each side of the tail; the beak, the feet, and the claws, are black.

This bird is about six inches and a half in length, and its tail is a little forked.

There is also another species of bullfinch, which comes from Porto Rico. Maugé, a French traveller and naturalist, has recently discovered it there; a male and female of which

which he brought with him, and deposited in the Cabinet of Natural History at Paris.

The male is six inches nine lines in length: on the head there is a large red crescent, each point of which protrudes on the sides of the neck; the throat, the fore part of the neck, and the lower part of the belly, are of the same red colour; all the rest of the plumage, the feet and the claws are of a deep black.

Daudin, who has just published the description of this bird, says, that he has found *the black sparrow with yellow spots*, of which Sir Hans Sloane speaks in his History of Jamaica, to be the same species as this bullfinch of Porto Rico; in that case, this species will be found equally in Jamaica, and many other of the West Indian Islands.

THE RED-FACED GOLDFINCH.

THE sides of the head of this goldfinch are tinged with crimson, and its tail is of the same colour, only less brilliant. The large quill feathers of the wings are of an obscure brown

brown, edged externally with a dull orange colour; the rest of the plumage is of a deep green; the beak is of a yellowish white colour, mixed with a little red, and the feet are yellow. It is nearly six inches in length; it comes from the kingdom of Angola, according to Brown, who has given a description of it from a preserved one in the cabinet of M. Taustall.

To the same author also we are indebted for another species of goldfinch, which he calls the *red-headed*. Of this bird not only the cheeks are coloured with red, but the whole head and neck, both above and below, are of a fine scarlet colour, with the exception of a black spot, in the middle of which the eyes are placed. The rump is crimson; the back, the breast, and the belly, are of an olive green; the wings are black, with two white transversal stripes upon the covert feathers; the feet are of a reddish grey, and the beak and tail are black.

This bird is nearly the size of a nightingale, and has been described from a preserved specimen in the same cabinet as the former. It is said to be a native of the Isle of France; but it is doubtful whether the same bird has not been already described by naturalists under another appellation.

There

There is also a new species, described by Virey, called the *parrot goldfinch*, which is found in the Sandwich Islands of the South Sea. Its beak, is, in fact, similar to that of a parrot; but it must not be confounded with the *parrot-finch* of Latham, which has, in reality, nothing of the parrot about it, except the distribution of its colours.

THE PIGEON.

GREY-HEADED GREEN PIGEONS OF ANTIGUA.

IN the islands of Lucon and Antigua there are various sorts of green pigeons, which may all be classed under the same species, as the difference in their colours is but small, and by no means sufficient to establish a variety of species.

The green pigeon of the islands of Lucon and Antigua is about the size of our ring dove. A pale grey colour covers the head, and the neck is tinged with a faint lilac hue; on the breast is a large deep yellow spot; a pretty green colour prevails on the covert feathers of the wings, which are, besides, edged with a stripe of yellow; the quill feathers of the tail and of the wings are black, and a reddish brown is seen towards the vent; the belly is of a pale green and yellow colour; the

VOL. VI. 2 O beak,

beak, which is short, is grey; and the feet are of a dull red colour, approaching to violet. The female has the head and the top part of the body of a greyish green colour; the wings are black, with yellow edges; the feet are ash-coloured. These individuals are represented in plate 64 and 65 of Sonnerat's Voyage to New Guinea.

The other green pigeon, which is found in the islands of Panay and Antigua, is the size of our stock dove. A greyish white, colours the head, and a reddish brown prevails on the nape of the neck, the neck, and its sides; and this colour reflects the most brilliant shades in the rays of the sun. An obscure grey covers the belly and the thighs; there is a brilliant green that has a metallic lustre, which is seen on the small feathers of the wings. This colour changes according to the aspect of the light, like the throat of the ordinary pigeon; the large quill feathers of the wings and of the tail are black; the beak and the feet are of a sanguineous colour, and the iris is yellow.

We will mention one or two other species of foreign birds that have affinity with the pigeon.

The *Pompadour pigeon* is a new species, which inhabits the island of Ceylon, and which

which has been hitherto unknown. Brown has drawn and described it. This bird delights to be upon large trees, and its flesh is very much esteemed by the natives of the island. Its size is smaller than that of our turtle dove, and it is easily taken with bird-lime. As its throat and the sides of its head are of a very fine yellow colour, it is sometimes called the *yellow-faced pigeon*. The general colour of its plumage is a greenish hue; the covert feathers of its wings are of a fine red, and their large quill feathers are black, with a yellowish stripe, which borders them; the beak is blue, and the tail is very long.

The *pigeon with red wings* was brought from the islands of Otaheite, Tanna, and Eimeo. There are many varieties of it. Its length is nine inches and a half; its plumage is black in general, with the forehead and the eye-brows white. On the covert feathers of the wings, towards the neck, there is an extremely brilliant red colour; the tail is ash-coloured from the point of insertion to about the middle of it; and the feet are brown. The beak is yellowish or black. There is a variety with the throat and the breast white, and the eye-brows of a ferruginous colour. The tail and the large quill feathers of the wings are

blackish. In another variety at Tanna, the colour of the plumage is a reddish black; the feet are red, and the eye-brows and the breast white.

The *hooked-beak pigeon* is also found in the island of Tanna. Its length is about seven inches: it is green, and yellowish on the under part of the body; the back and the covert feathers of the wings are of a light cinnamon colour, and the wings have two yellow stripes. The intermediate quill feathers of the wings are green, and those of the sides are ash-coloured, with a black stripe. But what is remarkable in this bird is its sharp and curved beak; and the nature of its food must necessarily be accommodated to this peculiar conformation. Its colour is yellow, and red towards its basis. The tail is rounded. There is a variety which has the back and the shoulders green.

THE CROWNED PIGEON OF BANDA.

THIS bird is called by the Dutch, *crown vogel*, and although it is in size as large as a turkey, there is no doubt of its belonging to the pigeon genus; its beak, head, neck, the whole form of its body, its legs, feet, claws, voice, manners, &c. decide it to be of that family. But, deceived by its size, some naturalists have hesitated to consider it as such, and have called it a *pheasant*. Edwards speaks of it thus: "It is of the family of pigeons, though as large as a middle sized turkey; M. Loten brought from India many of these birds alive.* It is a native of the island of Banda.

M. Loten

* Labillardiere, in his voyage in search of Peyrouse (vol. 2, p. 291) saw many crowned pheasants of the Indies, in the island of Waygiou. Sonnerat, in his voyage to New Guinea (p. 169, pl. civ.) has given a figure of one. He asserts that this bird does not inhabit the island of Banda, *but that it is to be found, and that it multiplies only in New Guinea.* Captain Forrest, in his voyage to the Moluccas, (p. 86)

M. Loten assured me that it is, properly, a pigeon, and that it has all the motions and tones of one in caressing the female; I confess that I should never have thought to find a pigeon in a bird of this size, but for this information."

Five or six of these birds were sent to Paris, but they were all so similar to each other in size and colour, that it was not possible to distinguish the males from the females, especially as the latter did not lay. M. Mauduyt, a very able naturalist, also affirms, that he saw many of them in Holland, where they also do not lay, any more than in France. In some parts of India they are brought up and fed in court yards, like domestic fowl.

THE PURPLE PIGEON OF JAVA.

VIREY, the coadjutor of Sonnini, in editing the late splendid edition of Buffon's works, thinks

found them at Tomogui. The natives of the country call them *mututu*, and the Papous *manipi*. This bird may be tamed; it eats Indian corn; it strikes very loudly with its wings. See the plates accompanying this volume.

thinks that the *purple pigeon* of Brown, and the *purple crowned pigeon* of Latham, ought to be united under one head, as they seem to be sufficiently similar to enter into one species. The first inhabits the island of Java, and the second the islands of the South Sea, between the tropics. Their size is from nine to ten inches. The second may be easily tamed; and it feeds upon bananas.

That of Java is greenish, with light purple tints upon the head and neck; the breast is orange coloured; the vent of a scarlet hue. That of the South Sea is green also, with ash-coloured tints underneath. The forehead and the nape of the neck are purple; the vent is of a yellowish red: the quill feathers of the wing are black. The beak is yellow, and sometimes black; the iris is yellow. Grey and yellow stripes cross, sometimes, the quill feathers of the wings; the feet are black and wrinkled; the claws are also black.

There is also a species of pigeon, called the *Jamboo pigeon*, of which Marsden makes mention in his description of the island of Sumatra; it is a sort of ring dove pigeon, and the plumage is green. Upon the forehead there is a deep cinnamon colour; the breast and throat are white; the beak and the eyes are yellow;

yellow; a green lateral stripe, and another of cinnamon colour, proceeds from the breast as far as the orbits of the eyes. This pigeon is principally found in the island of Java, where the Malays call it *pooni jamboo*. Its stature is not very great.

THE BLOOD-COLOURED TURTLE DOVE.

SONNERAT has described two turtle doves, which have a sanguineous spot on the feathers of their breast, as if they had been mortally wounded with the stroke of a dagger in this part. This mark of cruelty, impressed upon an animal so singularly mild, so full of innocence, recalls to our recollection that the weak in our own species often carry thus the stigma of violence, while powerful and depredatory beings are veiled beneath the covering of pleasure and the decorations of opulence. One of these turtle doves is entirely white, with the exception of this bloody spot upon its throat and breast; its eyes and its beak are red.

The

The other has its head, belly and wings, distinguished from the preceding one by three grey transversal stripes : and the sanguineous spot does not extend to the throat, which is white, but only to the breast. These birds inhabit the Manilla islands.

Two or three other species of turtle doves deserve to be mentioned ; of which the first is the *turtle dove of Surinam*, mentioned by Firmin. It is about ten inches long, and builds its nest on the highest trees, and in forests the most wild and unfrequented. The female lays twice a year. Its flesh is very much esteemed in the country. Its plumage is ash-coloured and whitish under the body ; its throat black, shaded with greyish stripes ; the largest quill feathers of the wings are brown, and the intermediate ones cinereous. The beak of this bird is long ; blue on the outside, and red within.

The *small turtle dove of Queda* is found at Malacca, and in the island of France. It is small, being not much larger than a sparrow, but the body is more elongated. A cinereous grey colour covers the forehead and the throat. The nape of the neck is of an earthy colour, and there are black transversal lines upon the feathers of the top part of the neck. The back,

the rump, and the covert feathers of the wings, are of the same colour as the throat; but each feather is terminated by a black stripe. On the sides of the neck may be seen a white colour striped with black. The belly and the breast are covered with a light grey; the thighs are of the same colour, crossed with undulated black lines. The large quill feathers of the wings are reddish underneath, and brown on the top. The tail is brown also.

This bird, which is very pretty, is also very agreeable to the taste when dressed.

The *turtle dove of Surat* is found towards Cambaye, and the environs of Surat. There are two species of turtle dove, about the size of our collared one. The first is of a light grey; the feathers upon the nape, and behind the neck, are black, with a white stripe upon the former, and a red one upon the latter. The large quill feathers of the wings are black, as well as the beak; and a dirty grey covers the back, the rump, and the tail. The iris is red.

The second race is grey, and its belly white. The quill feathers of the sides of the tail are black, as well as the beak and the feathers of the throat. The quill feathers of the wings are of a lively black, and the iris is a red colour. Under the same species of turtle dove
may

may also be ranged the grey one of the coast of Malabar, which differs from the preceding in nothing but a few oval spots on the wings. The beak is red as well as the iris. The middle of the tail is white towards its extremity, and its sides are black. Sonnerat describes this species.

We shall conclude this division with mentioning the *golden winged turtle dove*, which is described by Philips in his voyage to New South Wales. Its size is that of a large pigeon; the general colour of the plumage is cinereous in the upper parts of the body. Each plume is edged with white. The under part of the body is of a whitish grey; the top part of the wings is of the same colour as the back. A large oval spot, of a bronze colour, may be observed near the edge of each quill feather of the wing. These spots, when the wings are folded, form, by their re-union, two stripes of a dazzling colour, which changes to red, green, and copper colour, according to the various reflexions of the rays of light. Others of the covert feathers of the wings have also white spots irregularly placed. The quill of the feathers is red. The tail is composed of sixteen cinereous-coloured quill feathers, with a black stripe at their extremity.

The two middle feathers are brown. A deep red is the colour of the beak and the feet; the throat is a clear grey, and the forehead of a pale grey colour.

White, in his voyage to Port Jackson, observed also this species of pigeon. Its wings are covered with brilliant points of a shining yellow colour, and the green and copper-colour reflexions of the plumage, according to its exposition to the light, are remarkable. The breast is of the same colour as our pigeons. A buff colour covers the under part of the neck. A brownish red line extends from the root of the beak to the eye.

This is one of the prettiest species of pigeons known. Labillardiere, who killed one of them also at New Holland, had already met with them at Cape Diemen, and it appears that it is to be found in the greater part of the continent of New Holland.

THE CURLEW.

THE BRILLIANT CURLEW.

GMELIN saw this species of bird near the Tanais and Choper; but it is not limited to those countries of the north where Gmelin observed it; for, according to Mr. Latham, an individual of this species has been killed in the county of Cornwall.

It is not without reason that this bird has been denominated the *fiery curlew*, and the *brilliant curlew*, for its plumage is tinged with the most vivid and beautiful colours. On its body there are lines of shining blue, black, and golden green; underneath they are less lively and less varied, and the ground colour is a shining blackish red; black feathers, with a whitish fringe, like a border, cover the head and neck; the quill feathers of the wings and the tail glitter with a golden green, and the feet

feet are green as well as the beak. Its total length is nearly fourteen inches.

Before passing to the recently discovered species of this bird in the new world, we will mention two or three of the old one that are curious.

The Hagedash is so called by the colonists of the Cape of Good Hope. It is common at Houtinquas, and near Zwart-hops-river. It is also called *nadelde*, a word which expresses pretty accurately the cry of the bird; but the Hottentots denominate it in their language by the syllables *ta-kai-kene*, which is more difficult for a stranger to articulate than the language of the curlew itself, if indeed, the present bird be a curlew, a matter which is doubtful from the habits which have been described as peculiar to it.

It feeds principally on bulbous plants and roots, which it eradicates very easily and very quickly, with its twisted beak; it is always upon its guard, and is with difficulty approached, and it passes the night perched upon trees. The colonists assert, that when these birds are seen assembled in great troops, and flying against the wind, it is a sign of rain.

Sparrman,

Sparрман, to whom we are indebted for these facts, adds, that the *hagedash* is somewhat larger in the body than a hen, that the beak is five inches long, red at the top, and black underneath. The neck and the legs are a cinereous grey, with a green tinge, approaching to yellow, on the top of the neck; the upper part of the wings is of a brown colour, approaching to black; the under part blackish, and the covert feathers violet; the tail is formed *de coin*, and about twice as long as the beak. The feet and claws are blackish.

The *African curlew* is also a native of the Cape of Good Hope, but with regard to its real genus naturalists differ. Mr. Latham is the only one who has described this bird from nature, he having obtained permission to delineate a preserved one in the Leverian collection.

It is hardly so big as a woodcock, and it lives in troops in the humid and marshy parts of the southern point of Africa. Its plumage is cinereous on the top part, and white underneath, spotted with dark red; its head and rump are white; the quill feathers of the wings brown with a white edge, and its beak and feet blackish.

The

The *smallest of curlews* is so called on account of its diminutive size, not being bigger than a lark. It is found in Holland, and sometimes, though very rarely, in England. This small bird, a true pigmy among the genus of curlews, is tinged on the top with brown, red, and white; this last colour also prevails on the rump and under the body; the quill feathers of the tail are blackish, and the lateral ones have a white border; the beak and the feet are black.

Of the curlews of the New Continent we shall mention, first,

The *Pillu*, which is so called at Chili, according to the Abbè Molina; but from his description of it, it may be very much doubted whether it has not been improperly placed among the genus of curlews by this author. Of all aquatic birds the legs of this bird are the largest, for they are two feet eight inches in height; but the bulk of the body does not correspond with this length of the legs, for it is not larger than that of a goose. The neck is two feet three inches long, with a small crop, bare of feathers. The head is of a middling size; the beak is large, convex, pointed, and about four inches long; the forehead is naked, and the tail short; a small membrane unites the
toes

toes at their basis. The Spaniards call this bird the *stork of Chili*, and in truth it appears to have more affinity with that genus than with the curlew. With regard to the plumage, it is white, striped with black.

The *pillu* almost always keeps in marshes and on the the margin of rivers and lakes of fresh water. It feeds upon reptiles: it is never upon trees, or on any sort of eminence; it generally places its nest amoung reeds, and the female lays two white eggs which have a bluish tinge.

The *first curlew of Hudson's Bay* is about the size of the small curlew, and has many affinities with it; so that it will not be surprising if future observation should prove that this curlew of Hudson's Bay is but a simple variety of the small curlew, from which, in fact, it differs only by a white stripe, which divides longitudinally the top of the head, by another white line in the form of an arch above the eye, and by the rump being of the same colour as the back. Mr. Pennant was the first that mentioned this species. It arrives in numerous flights upon the coast of Labrador, in the months of August and September, and at Hudson's Bay in April and May. These birds keep in open places, and their flesh acquires

much fat and flavour. Their cry is a sort of whistling, and the female lays four eggs.

The *second curlew of Hudson's Bay*, differs from the common curlew (with which however it has many affinities) in the size, being, at least, three times smaller, and the beak also smaller. The back is a deep brown colour, and the belly is white, mixed with ochre-yellow. It is found at Hudson's Bay, in inundated places, and humid meadows, and it lives upon worms and insects. Gmelin is wrong in confounding this bird with the preceding one, as it is entirely distinct.

The *tevrea* is the name which a species of curlew bears in Otaheite, the size of which is nearly that of the common curlew. It differs from it, however, in the shades and in the distribution of its colours; a whitish stripe surmounts the eye, and the neck is striped with black. On the back, and on the upper covert feathers of the wings, there are undulated black and white stripes upon a ground of white and clear red, which is the prevailing colour of the plumage. The tail has some black spots towards its insertion, and transversal stripes of the same colour towards its point. The beak is brown, with some red at its basis; the feet are bluish.

THE PENGUIN.

THE PENGUIN OF THE BALTIC.

M. PALLAS, who describes this penguin, confesses that he has not had sufficient opportunities of observing it to decide whether it is a variety of the small penguin, or a distinct species; finally, however, he decides for the former opinion. M. Brunnick, however, thinks that it constitutes a distinct species, and he has called it the *penguin of the Baltic Sea*. But the opinion of Pallas is, perhaps, the most correct, from the almost perfect resemblance which there is between the small penguin and the subject of this article. The only difference which there is between them is, that the penguin of the Baltic has not the small stripe which proceeds from the beak to the eye, and that its plumage is entirely white on all the under parts from the

beak to the tail. Hence Mr. Latham, struck with such a conformity, supposes that this bird is the young one of the small penguin, newly hatched.

Of this singular part of the creation there are some other species, among which the following are most deserving of notice:

The *small tufted penguin*. The tuft which this bird has upon its forehead, is formed of several feathers, from the middle of which proceed six large feathers, silky and slender, which hang gracefully, bending towards the beak. This pretty tuft has a very striking conformity with that of the tufted blackbird of China; and it crowns one of the most singular of beaks. Let the reader imagine a short and nearly conically formed mass, as red as scarlet, and white at its end, the upper mandible of which is convex, and the under more flattened, and truncated obliquely, marked on each side by a furrow, which begins at the root of the beak, and forms a sort of triangular *abajoues* near the angle of the mouth; lastly, above this angle, a fleshy excrescence, of a beautiful red colour, having the form of a heart, and flattened underneath; and he will have a tolerably precise idea of this

this complicated beak, upon which are perforated the oblong apertures of the nostrils.

The tongue is entire, and rather thick; the gullet is large; the head is smaller in proportion than that of the small guillemot; and the whole bird is not very large.

Under the eyes, which are small, may be seen a white stripe, and on each side of the neck, near the head, there are some silky and very fine feathers of the same colour; the head is black, as well as the top of the neck and back; but this last part is variegated with large and scattered lines of a reddish brown colour; the rump is a whitish grey; and the down which covers the whole body is cinereous. The covert and the quill feathers of the wings are of a sooty black colour; those of the tail are a common black, and the feet are a clear brown.

This species is common towards the islands at the extremity of Lapland, and particularly near the island of Matmey. During the day these birds keep at sea, and they retire, towards the approach of night, into the holes on the shore, or clefts of the rocks, where they may be easily taken by the hand; they even fix themselves on the vessels, so very thoughtless and stupid are they. Steller and Krachenninikow

chenninikow say, that these penguins are to be found also in the sea which bathes the coast of Kamstchatka.

There are two other species of penguin which deserve to be noticed. The first is

The *small blackish penguin*, which has a considerable affinity with the preceding; its beak is formed nearly in the same manner, but with smaller dimensions; and besides, it is of a yellowish brown colour. On the forehead there is only the rudiment of a small tuft, a sort of frizzled toupée, and divided longitudinally into two parts; but it has none of the long, fine feathers, which bend forward so gracefully over the beak of the small tufted penguin. A whitish stripe descends behind the eye, the iris of which is white; the feet are a livid brown; and the membrane of the toes a deep black. In other respects, the description of the tufted penguin agrees almost in every point with this, only that the colours of the plumage are less vivid.

It is found very frequently upon the peninsula of Kamstchatka. It nests in the month of June, and each female lays only one large egg. Its manners are the same as those of the small tufted penguin, which it seems however to surpass in stupidity; for Steller says that
this

this bird came not only on the vessels, but even on the shoulders of the men. Lice of a peculiar form torment them while living ; and, when dead, they are useless, for the dryness and hardness of their flesh, which is covered with a short tenacious down, renders it impossible to be divided, and it can be palatable only to the most wild and gross nations, such as the Kamstchadales, who live on the worst and most disgusting food.

The *parrot penguin*. Some resemblance in the form of the beak of this penguin with that of the parrot, induced Pallas to suppress the barbarous appellations which this bird has in the northern countries, where it is usually found, and to adopt in its stead a specific denomination, which should designate its most remarkable attribute. There is no membrane at the basis of this parrot-beak, but in lieu of it, a wrinkle of the skin on the forehead ; the upper mandible is an exact representation of a grain of gourd, and the under one has the shape of a sickle ; both are striped with a furrow, which is deeper on the upper chap. The apertures of the nostrils are large, oblong, and parallel to the edges of the beak, from which they are a little distant ; the tongue is *en alêne* ; the eyes are small, like those of all
the

the birds of this species ; in a state of repose the wings do not extend beyond the tail, the quill feathers of which are short and almost equal. The whole bird is nearly the size of the small guillemot, but it is fatter ; it is black on the head, the top part of the neck, the back, the wings, and the tail ; a white spot occupies the middle of the upper eyelid, and another spot, of the same colour, is under the eye. All the under parts are white ; there is a grey shade on the front of the neck, and a little black on the thighs and the feathers of the legs. The beak is of a beautiful red ; the feet are of a dirty yellow, and the membranes of the toes brown.

M. Pallas was the first that ever spoke of this penguin ; and to that indefatigable traveller, Steller, we are indebted for all the following information :

During the day, these parrot penguins may be seen swimming in troops in the seas of Kamstchatka ; but they do not move far from the islands and rocks, where they shelter themselves during the night. The people who inhabit the coasts of the Archipelago of Kamstchatka, have discovered so much stupidity in these penguins that they do not use much art in catching them ; they go in the evening to the

the shore covered with their large coats, which consist of skins sewed together, and which they call *kuklanka*; they take their arms from the sleeves which hang pendant; they sit, motionless, and waiting for the penguins, who, in the obscurity of the evening, mistake the sleeves and the opening of the coat, for a safe retreat, push in without fear, and are taken, one after the other, by the huntsman, and killed. In fact, they would not be worth hunting were the chase more difficult; their flesh is blackish, and very tough, and the down adheres to it with such tenacity that it cannot be removed without tearing the skin. This stupidity of the parrot penguins is not without its utility to those who brave the tempests and terrible agitation of this part of the ocean which separates Kamstchatka from America. When, in approaching the islands, these birds come upon the vessels, and allow themselves to be taken with the hand, it is a certain presage of the approach of bad weather, and the signal of danger. The female lays towards the middle of June; it consists of a single egg, which is rather large, and has a pleasant taste; sometimes it is whitish, sometimes a pale yellow, and always spotted with brown; the female lays it upon the sand, or upon a stone, without any precaution.

The particular species of penguin to which ornithologists have given the fantastic name of *antique penguin*, need not be considered as a distinct one. It lives like the preceding ones, near the coast of Kamstchatka, and the Kurile islands; it has so many affinities with the parrot penguin and the small tufted penguin, that it may be referred to one or other of those species; and the discrepancies which may be observed in the descriptions, are to be attributed probably to the ignorance of the describers.

In the same predicament also stands another species, which ornithologists call the *pigmy penguin*, whose very existence is even doubtful.

OF THE GOOSE, SWAN, AND DUCK.

THE HYPERBOREAN GOOSE*.

IF this denomination belongs to any species of goose, it is, doubtless, to the present one, which adopts for its habitual residence the arctic regions of our globe, and those places which are most refrigerated by snow and frost. In the earliest part of Spring, and before the appearance of any other water fowl, immense colonies, to the amount of three or four hundred, of these hyperborean geese are seen to arrive in Siberia. These numerous winged cohorts alight first near the river Kolyma; and they then set forth again to reach the

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mouth

* This appears to be something similar to the *white goose*, (see vol. 3, p. 160, Birds;) but if it be the same, which however is very doubtful, yet the additional information of Sonnini would entitle it to a place here.

mouth of the Jana or Lena, before even the melting of the snow or the breaking of the ice. Want of pasture soon forces them to direct their course towards the south, following principally the course of the Lena, in order to search the lakes, marshes, &c. which, at this period, present them with insects and aquatic plants. In this manner they extend as far each year as Jakutsk; but they do not go beyond; if they are occasionally seen near the river Olecman, it is only in small troops, of ten at most, in number; and nothing is less common than to see any one of them near the place where the Wittim empties itself into the Lena. They do not abide long in these places, as do the common wild geese and the laughing goose, which arrive from all sides at the same time; but the hyperborean goose, not being able to endure the heat returns to the shores of the frozen sea, as soon as the mild temperature of spring begins to shed its tardy influence upon countries long hardened by excessive frosts. It is on the shores of this ocean, yet half frozen, that they occupy themselves with the propagation of their species. It must be observed, that they do not take the same road in returning as they did in setting out; but when they have arrived at
Jakutsk,

Jakutsk, they change their direction, and turn a little towards the east, passing by the lakes of Jana and Indigirkan, and thus regaining their chosen place of residence.

Some scattered individuals, however, occasionally appear in less cold regions. Schwenckfeld has ranged this bird among those which are to be found in Silesia; and Marsigli has given a drawing of it in his History of the Danube. Brisson describes it after Schwenckfeld, under the name of the *Snow Goose*, which appellation may belong either to the whiteness of the bird, or to the region of ice and snow, which it inhabits from choice.

The hyperborean geese also make excursions to America, regulating themselves always by the quantity of food, and never wandering far from the north. They are seen in innumerable troops at Hudson's Bay; they appear also to frequent the opposite coasts, for Ellis says that he has seen them at Onalaska; but it may be presumed that they are not very numerous. The natives of Hudson's Bay, those of Kamstchatka, and many other people of the north, where rigorous frosts condense, perpetually, the earth, and do not permit it to thaw beyond one foot in depth, heap up, in spacious excavations, thousands of these geese, deprived

deprived of their feathers and their entrails, and cover them simply with the earth. They have observed indeed, that if, from motives of cleanliness, they have placed between the earth and the geese, branches or hay, all the provisions have become corrupted, while, on the contrary, the mere earth thrown immediately on the top of them, preserves them perfectly. These subterraneous magazines form, in winter, an ample and excellent resource for those who live in these harsh and severe countries.

This species has not the distrustful and savage nature of the wild geese of the common species; the hyperborean goose may be approached near enough to be killed with stones; the manner in which the Russians, and the Jakuts of Jana and Indigirka conduct the chase of them, proves to what a degree they are heedless and stupid.

The most favourable season for this chase is between the month of April and the end of June, because at the time when the hyperborean geese arrive, they are very thin; and in June, when they have moulted, they lose a great portion of that fat which they have acquired from abundant nutrition. Three or four hunters unite themselves, and when they have discovered a band of geese pasturing near
a river,

a river, they extend, upon the bank of the river, a large net, or they make a cabin of skins sewed together; then, one of them, entirely covered with the white skins of reindeer, goes straight towards the band of geese, which the others surround in the rear, and drive them forward by hissing. The troop follows, without fear, and better than domestic geese, the man cloathed in white; and this false conductor leads them near the net, which falling, often entirely covers them. If, instead of a net, they have reared a cabin, the geese also follow the hunter; when they have filled it the door closes, and they meet with a cruel death as the reward of their confidence; and this confidence is so entire, and so general, that a flight of geese, which perceives one of these troops led by the hunters, alights near them, and accompanies them without any difficulty.

It has already been observed, that the hyperborean goose is as white as snow; from which general colour, however, we must except the forehead, on which appears a yellowish tinge, and the quill feathers of the wings, the first eleven of which are always black for one half of their length, and the others have, in general, their tips of a cinereous colour;
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this last colour, indeed, sometimes tinges a part of the covert feathers of the wings. The beak is a lively red, but the edges of the under mandible are somewhat white, as well as a spot between the nostrils; the iris is a yellowish brown; the feet and the membrane of the toes are red, but the toes themselves are black. The young ones have not only the forehead yellowish, but the top part of their head and neck, as well as their shoulders, and sometimes their throat, have the same shade united with a reddish tinge. The size of this bird is between that of a domestic goose and of the laughing goose, and its weight is not more than five pounds; the wings, when folded, extend a little beyond the tail.

THE KASARKA GOOSE.

THE name of *kasarka*, or *kassarka*, which travellers have applied to many species of geese in the northern parts of Europe, is specially appropriated in Russia to the present bird, which is one of the smallest species of wild

wild geese. It is hardly bigger than the wild duck, but it stands higher than the common goose ; its total length is one foot ten inches ; the prevailing colour of its plumage is a lively brick red ; the head is of a light fawn colour, and the rump brown, striped with fawn colour ; the quill feathers of the wings and tail are black, as well as the beak, the iris, and the feet ; the covert feathers, and the under part of the wings, are of a white colour. The male has a black collar, which is wanting in the female.

The kasarka has some points of resemblance with the Egyptian goose ; but it notwithstanding differs sufficiently to constitute it a distinct and absolutely different species, which never visits the burning climate of Africa. It lives in the most southern countries of Russia and Siberia, and it is said that it passes the winter in Persia and India. These geese do not fly in numerous troops like others of the kind ; they are only met in couples. Confidential and peaceable inclinations accompany, in general, this perseverance in the most amiable and intimate of connexions ; and hence, the kasarkas are neither fearful nor ferocious ; they suffer themselves to be easily approached, but man has not any great

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interest in killing them ; their flesh is good for nothing ; the Tartars of the Crimea affirm that it is even dangerous. “ Nevertheless,” says the Baron de Tott, “ I have tasted it, and I only found it very disagreeable*.”

To the interior qualities the kasarka joins exterior graces ; it has neither the painful balanced walk, the awkward heaviness, nor the ignoble look, which belongs to its family. Its long feet permit it to advance with celerity ; its attitudes have dignity, its deportment is graceful, and its flight easy, and without noise ; its voice even is not rough or disagreeable ; it is, indeed, asserted that its tones are even pleasant, and do not offend the ear like those of the common goose.

These geese establish their nests in the clefts of rocks and in caverns ; they very seldom place them either in the holes of trees or in pits in the earth ; the female lays eight or ten white eggs, and which are larger than those of the wild duck.

* Mem. du Baron de Tott, sur les Tartares, tom. 1, p. 222. This is a positive assertion, and which destroys that of Gmelin, who says that the flesh of the Kasarka goose is very savory ; *caro sapidissima*.

THE CAGE.

THIS is a species of bird described by Molina, in his Essay on the Natural History of Chili; and it is found in the islands of the Archipelago of Chiloë. It is of the size of our domestic goose, but its neck is shorter, and its wings and its tail, which last terminates in a point, are longer. Its beak is semi-cylindrical, and furnished, at its base, with a red membrane. In this species the male is entirely white, with the exception of its beak and feet, which are yellow. The female, on the contrary, is black; many of its feathers have merely a little white like a border, and its beak and its feet are red. "I have given to this bird," says the Abbè Molina, "the name of *hybride*, or *mulatto* goose, which appears to me to express the remarkable difference between the two sexes." But Sonnini preferred the name of *cage*, being that which is given it by the natives of its natal country.

The extreme disparity which exists between the plumage of the male and female, is not the only singularity which distinguishes this from every other species of goose. It is a solitary bird; it is never seen, like other geese, in noisy troops, flying in the air, or alighting in the fields; but, more calm, and above all, more constant in its tastes, it flies from tumultuous associations to give added charms to the pleasures of solitude, in partaking it with a companion which it never quits; these inseparable couples live happily, for they live retired, faithful, and loving. The *kasarka* has already furnished us with an example of this sort of anomaly in the habits which are common to the goose genus. During the time of laying, the cage goose retires to the shore, and the female deposits eight white eggs, in a cavity which she has herself dug in the sand.

THE BLACK-HEADED SWAN.

IF we imagine a domestic swan with the head and part of the neck of a fine velvet black, and the beak entirely red, we shall then have the description of a species of swan which Bourganville and Pernetty saw in the Malouine islands, on the river Plata, and in the streights of Magellan. Coreal also (tom. 2, p. 213) saw it on the coast of the South Sea, and Frezier and the Abbè Molina at Chili. This last is the only one who has spoken of the habits of the black-headed swan, and he mentions a very singular peculiarity, viz. that the female, who generally hatches six young ones, never leaves them alone in the nest, but carries them on her back every time she goes out to seek for food.

The *black swan*. In our minds the word swan calls up the idea of a bird of a beautiful white colour; but not so to the inhabitants of New Holland. There, our proverbial expression has no longer any application, and *they* ought to say *black as a swan*. A shining
black

black colour is, in fact, that of the plumage of swans in this country ; they have only six quill feathers in each wing that are white. The upper mandible of the beak would be entirely red were it not for a blackish transversal stripe towards its point. As in the common species, this mandible is surmounted, at its base, by a fleshy tubercle, forming two protuberances, which are scarcely perceptible on the beak of the female ; the under mandible is red ; the feet and the toes are of a deep grey.

These birds, which are somewhat larger than our swans, have the same majestic port, and the same grace in their motions ; the velvet black colour of their plumage emits the same lustre as the white of our swans ; and when they take flight the white quill feathers of their extended wings form an agreeable contrast with the general colour of the plumage. They appear to be very common in New Holland, for those who have navigated this part of the world have killed enough in one day to load a canoe with.

The *ash-coloured swan* is entirely a new species, and lives, like the preceding one, in the waters and marshes of New Holland. We are indebted for the knowledge of it to Labillardiere, the first and the only one who

who has spoken of it, and we cannot therefore do better than to repeat his words :

“ On the coast of New Holland, in $35^{\circ} 17'$, south latitude, and $115^{\circ} 12'$, of east longitude, we found a numerous troop of swans, many of which suffered themselves to be taken by the hand; but the others, aware of their danger, soon flew away. This new species is somewhat larger than the wild swan, and of a cinereous grey colour, the hue of which is somewhat clearer under the belly; the beak is blackish, and at its base it is puffed out, and of a sulphureous yellow colour; the feet are slightly tinged with red.” See *Voyage a la recherche de la Perouse, par Labillardiere*, tom. 1, p. 394.

THE DUCK OF THE NILE.

THERE are various species of wild ducks to be seen swimming on the waters of the Nile both in upper and lower Egypt; they keep on those parts of the river where projecting pieces of the land secure them from the
rapidity

rapidity of the current, and from the agitation of the winds; they suffer themselves to glide along with the hardly perceptible course of the stream, and when they arrive at a certain point, they take flight in order to regain the spot from whence they proceeded. Sonnini observed troops of these ducks which repeated this method days together; but among those birds, which may be exclusively called *ducks of the Nile*, as they never leave that river, he saw none of that species to which Hasselquitz has appropriated this denomination*. Forskæl, who has described various species of Egyptian ducks, makes no mention of this one. It may be doubted even whether it be really a species of duck probably it is a sort of goose, perhaps the *Egyptian goose*, to which, indeed, the brief description of Hasselquitz is sufficiently analagous, and it is well known that in the methodical style of Linnæus, the goose and the duck are confounded under the same generic denomination.

Till, however, future observation shall confirm or destroy these conjectures, we shall
describe,

* See a voyage in the Levant by Hasselquitz, published by Linnæus, — *Anas nilotica*.

describe, according to Hasselquitz, this pretended duck of the Nile, which, if it must be ranged under that genus, approaches nearly to that which is distinguished by the denomination of the *musk duck*.

The Arabs call this *back*, and it may be remarked, that *bauk* is the Arabic term for the Egyptian goose; and this similarity in designations badly pronounced or badly written, is another proof of the identity of the Egyptian goose and the duck, which Hasselquitz has called the duck of the Nile. It has the neck and the top of the head white spotted with grey; a white stripe extends behind the eyes; the back is whitish; the under part of the body greyish, and striped with black; the thighs striped with grey; the tail long and rounded; the iris of the eyes yellow; the feet red, and the callosity on the edge of the beak, as well as the fleshy excrescence at its basis, is yellow. It is found, according to Hasselquitz, in Upper Egypt and in the Red Sea; it is easily tamed, and the Egyptians bring it up in their yards.

We shall mention several other species of this numerous family of birds.

The *crooked-beaked duck*. If this duck be, in fact, a different species from the common

duck, as M. Pallas thinks, it is certainly a most rare and uncommon one, for only one individual of it has hitherto been discovered, and that one served M. Pallas for his description; and even this naturalist only saw the preserved skin in a cabinet. This duck was taken in Belgium, and it is a little larger than our wild duck; its beak is curved, or rather turned up like that which Brisson has called the *canard à bec courbè*, and which is only a variety in the species of common duck, thus deformed by the influence of a domestic state. Almost the whole bird is black; the head, the neck, and the rump, have slight shades of an obscure green; a white oval spot covers the throat, and the five external quill feathers of the wings have the same colour; the iris of the eye is fawn colour.

The *Heturrera*. Such is the name which the natives of New Zealand give to a duck, the species of which has since been found on the coasts of Queen Charlotte's Streights. It is the size of our wild duck, and its length is about twenty inches. A white stripe, which is in the form of an arch above and below the eye, has induced some nomenclators to call it the *eye-brow'd duck*; but this is too unimportant a designation, and may belong to others as well

well as to this. The name which it bears in its native country is preferable. The throat and the front of the neck are whitish; the large *plate* on the wings, which is common to the species of this genus, and which ornithologists call the *mirror*, is of a bluish green colour, surrounded with a black line; the rest of the plumage is of a deep grey; the beak has a leaden hue, and the feet are of a cinereous brown.

The *Succè* is the name of a species of duck at St. Domingo, which approaches a good deal to the common grey-headed widgeon. Modern ornithologists have called it the *Jacquin duck*, from the name of the traveller *Jacquin* who was the first that spoke of it. The size of this duck is equal to that of the white-faced duck; its plumage is of a bay red, with the exception of the back, which is blackish. Its beak and feet are black. It is a noisy bird, and its voice is very shrill.

The *spotted-billed duck*. The variety of the colours of the beak of this duck is the most striking attribute on a first observation, and from it has been derived the distinctive denomination of the species. This beak is elongated, and black for the greater part; the point is white, and on each side of its root is

a red spot. A black stripe, which begins at the beak, extends along the sides of the head, and crosses the eyes; the cheeks and a part of the front of the neck, are of a whitish ash colour, and the feathers of the belly black. An ash-coloured stripe surrounds the quill feathers of the wings, of which the large ones are black, and the middle ones white; a shining green *mirror*, surrounded by a circle, half black and half white, appears upon the wings; the rest of the plumage is black, and the feet are of a red mixed with yellow. This duck is very common in the island of Ceylon, and in the East Indies.

The *pink-headed duck*. Were we to judge of this bird from the plate of it, which Mr. Latham has published, we should rather consider it as belonging to the goose species than the duck, principally on account of the form of the beak, which is perfectly that of a goose. It is of a lively cinnamon colour both on the head and the upper half of the neck, which are covered with close and short feathers; those of the body are of a chocolate brown; the covert feathers of the wings, are long and turned up, and the *mirror*, which occupies a part of them, is not very brilliant, and is of the colour of rust; the iris of the eye is red, and the

the feet are tinged with a bluish grey. The total length of the bird is about twenty inches. The female differs but little from the male. This species exists in many parts of India, and principally in the province of Oude; it is rarely seen in troops, and almost always in pairs; many of them are kept tame in India.

THE DUCK OF STELLER.

PALLAS has consecrated this rare and new species of duck to the memory of Steller, a learned and laborious traveller, to whom we are indebted for the discovery of it. It would be unjust to change a denomination which is equally honourable to the giver and receiver.

It was in the shoals and inaccessible rocks of Kamtschatka that Steller saw those ducks, the species of which bears his name; there they place their nests, and fly in troops upon the waters of the sea, from which they never retreat to enter the rivers. They frequent also the most northern countries of America.

A couple

A couple of these birds have been seen on a river in Ostrogothia. The beak is very much like that of a goose, and the apertures of the nostrils are placed in about the middle of it; some feathers, of an irregular length, form a sort of small tuft on the back part of the head; the tail is short, and terminates in a point; and the wings, when folded, scarcely reach as far as the rump. There are, upon the head, two spots of an emerald green colour, one transversally across the nape of the neck, the other larger, which extends from one eye to the other, passing over the forehead; a circle of small black silky feathers surrounds the eyes; the back, the throat, and the front part of the neck, are black; there is a sort of collar also, of the same colour, but sparkling with violet shades; the rest of the body is white, with the exception of the breast, upon which there is a slight reddish tinge; the large quill feathers of the wings are of a blackish brown; the middling ones a mixture of black and blue, with a white edge; and the small ones a violet black externally, and white underneath. The tail is brown, and the iris of a clear brown; the beak and feet are black.

The plumage of the female, variegated with
brown,

brown, and a reddish yellow; it has a great deal of resemblance with that of the woodcock; all the quill feathers of its wings are straight, and blackish, and there are two white spots, one larger than the other, on their covert feathers.

According to all appearance it is this female which Linnæus, Gmelin, and others, have considered as a distinct species, under the appellation of the red duck; the indications which they give, however, accord, almost in every point, with the present.

THE NYROCA.

UNDER this name, in the New Commentaries of the Academy of St. Petersburg, is the description of a northern duck, by M. Gueldenstaedt. This bird approaches nearer to the spoon-bill duck than any other of the same genus, and perhaps, therefore, it is only a variety of it. Yet it differs from it in having the head free from the tuft and the chestnut colour, as well as the breast and thighs; also

also in the whitish tinge of the iris of its eyes ; in its belly being variegated with brown and a dirty white ; and, lastly, in the snowy whiteness of the under covert feathers of the tail. Its total length is about fifteen inches. On the other hand, the female of the nyroca differs from that of the spoon-bill duck, in not having even the vestige of a tuft on the head, in having the iris of its eyes whitish, and the covert feathers of the under part of the tail of the same dazzling white as the male. It is distinguished from the male of its own species, by its being smaller, the reddish tinge on its back, the rust-coloured shade on the head, throat, and breast, and by the brown undulated stripes on its belly.

M. Gueldenstaedt relates, that the nyroca lives on plants, grains, and hardly ever on fish ; it is found on the waters of the Tanais ; it migrates according to the seasons, as do almost all species of the same genus ; the male and female never quit each other ; the female lays six or eight whitish eggs, in a hole dug in the earth upon some little eminence above the water, and she alone takes charge of the incubation ; it is a game much sought after on account of the savoury and tender quality of its flesh.

The

The *grey duck of Egypt*. Hasselquitz, who was the first that mentioned this duck, calls it the *duck of Damietta*; but as there are many species of ducks in the lakes of Damietta, it became necessary to change such a vague denomination, though it has been adopted by modern nomenclators.

The size of this bird, which Sonnini himself saw in the canals near Aboukir, is nearly equal to that of our wild duck. The general ground of its plumage is a grey, which becomes somewhat blackish on the neck, the scapular feathers and the tail; a spot, in the form of a crescent, surrounds the nape of the neck, and the quill feathers of the wings are of a blackish green.

This species is common in the lakes and ponds of the northern part of Egypt. The inhabitants catch them with nets.

THE WAFPI.

THIS is a species of teal, and its name is formed by a contraction of the long denomina-

tion *waw pew ne way se pis*, which is the one given to it by the natives of Hudson's Bay. It is, in fact, in the most northern countries of America, that this species of teal has been observed. It arrives in Hudson's Bay in the month of June, and it departs again in October, the female having laid ten white eggs, which she deposits in holes of trees growing by the sides of lakes. It feeds upon aquatic plants.

The total length of this teal is a little more than a foot. On the top of the head it has a sort of black cap; the tail and the feet are of the same colour; the breast, the belly, and the covert feathers of the wings are blue; the largest of these covert feathers have a white spot; the throat and the under part of the middle quill feathers are white.

THE KING FISHER.

THE KING FISHER OF MALIMBO.

THIS bird has a thick, strong beak. It is nine inches and a half in length; the beak alone is two and a half, and ten inches in diameter at its basis. The tail is three inches, and the wings, when folded, reach to about the middle of its length. The wings, from tip to tip, when extended, are ten inches. The length of the tarsus is seven lines, that of the middle toe, eleven, that of the exterior one, nine, and that of the interior, six and a half.

The similarity in the form of the beak, and some other traits of affinity, at first led Sonnini to think that this was the same as the large beaked king fisher, which is also found towards the south of Africa; but, comparing them attentively together, it was evident that they were distinct species; for, besides, the difference of size (the present one being much smaller) there

there was also a remarkable disparity in the colours of the plumage. This bird has a grey forehead ; the head, the neck, the back, the rump, the tail, and the breast, are of a clear marine blue ; the throat and the belly are whitish ; on the sides of the head there is a black stripe which traverses the eye ; the covert feathers of the wings, and the scapular feathers are black ; the external side of the quill feathers of the wings is the same marine blue as what prevails over the body, and their internal side is brown, as well as their end. The iris of the eyes is rose colour ; the feet, the toes, and the nails are brown.

The female has the head, neck, back, and breast, of a bluish grey, and has brown instead of black, on the wings.

This, therefore, is absolutely a new species, for the discovery of which we are indebted to the researches of Perrein, an ingenious traveller. His manuscript notes say that this king fisher is common at Malimbo, upon the sea shore, from which it very rarely departs, and that it feeds upon fish and small worms.

FINIS.

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